# AI and the Missions for Government: insights from a public dialogue

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# Foreword

Despite rapid progress in AI’s technical capabilities, there remains a persistent gap between the potential of these technologies and our ability to deploy them for public benefit. Bridging this gap requires action to articulate social needs, build understanding about how AI can help address them, and connect this understanding to AI research and policy. Public dialogues provide a way of recentring social need in discussions about AI. By creating spaces to share aspirations for – and concerns about – AI, they can help create new understandings about the developments needed in research, policy, and practice to deliver AI that benefits science, citizens, and society.

This report presents insights from public dialogues convened in Cambridge and Liverpool during September 2024 by ai@cam, the Kavli Centre for Ethics, Science, and the Public, and Hopkins Van Mil. This dialogue set out to understand public perspectives on the role of AI in delivering priority policy agendas connected to four of Labour’s Missions for Government. In discussions about crime and policing, education, energy and net zero, and health, participants shared their views on the potential benefits offered by AI and the guardrails needed to guide its development.

The results offer insights into a future vision for the use of AI in public services in the UK. By helping reduce administrative burdens on frontline service providers, streamlining or optimising the systems that underpin our public services, or providing decision-support tools that allow human decision-makers to access insights from data, participants told us that AI could help transform people’s interactions with public services across the Mission areas. Participants also emphasised the importance of working with AI in ways that enhance human interactions, that protect privacy and security, and that ensure transparency and accountability in service delivery.

Across Mission areas, we heard a call to action for Government to create policy frameworks that centre public benefit and for those developing and deploying AI to engage with the public to help create a shared vision for what we need from these technologies.

We hope this work informs a continuing conversation about how we can drive AI innovations that deliver meaningful public benefit.

These dialogues benefitted from input from collaborators at the University of Cambridge, University of Liverpool, University of Manchester and King’s College London, as well as from the time and energy of our public participants. Thank you for your contributions to this project.

Jessica Montgomery, Director, ai@cam

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# Executive Summary

## About this public dialogue

In September, 40 members of the public took part in two workshops, in Liverpool and Cambridge, together with AI specialists from the University of Cambridge, University of Liverpool, and University of Manchester. In small groups of 7-8 they discussed their aspirations and concerns for the use of artificial intelligence (AI) in public services. The conversations focused on four of the Government’s mission areas: health; education; crime and policing; and energy and net zero. The workshops concluded with discussions on the kinds of guardrails and interventions participants thought were necessary to ensure AI delivers public benefit and avoids societal harm.

The public dialogue was commissioned by ai@cam, the University of Cambridge’s flagship mission on artificial intelligence, in collaboration with the Kavli Centre for Ethics, Science, and the Public. It was designed and delivered by the specialist social research agency Hopkins Van Mil. The findings from this public dialogue will inform ai@cam’s Policy Lab initiative, which brings research evidence to bear on the development of policy frameworks that connect AI development to wider public benefit.

## Key findings

Overarching public aspirations and concerns for AI in public services highlight the potential for AI to enable mission delivery, and indicate features that successful AI applications should demonstrate:

* Helping to reduce administrative burden on over-stretched public services and free up staff time for human interaction.
* Acting as a co-pilot for human expertise: helping, but not replacing, human decision-makers.
* Speeding up processes, systems and data sharing for more immediate benefits for individuals engaging with public services.
* Ensuring a shift to AI-enabled services does not exclude or disadvantage people not using digital tools.
* Exacerbating existing discrimination: a lack of diversity and accuracy in data sources used in AI models.
* Diminishing personal interactions: the need to avoid ‘AI-ing everything’, which could hinder social connection and increase screen time.

### There are clear expectations for guardrails and interventions that prevent misuse and promote democratic control over AI development

* People should be able to understand when, how, and why AI is being used in public services that affect them. Broad public understanding on AI is needed, alongside transparency around the use of AI.
* Independent regulatory bodies made up of a broad coalition of stakeholders, including the general public, should govern and monitor the use of AI in each sector.
* Legal and regulatory frameworks are needed to guard against technology companies’ influence over public services, and the risk that profit might be prioritised over public service quality.
* Governance and regulatory frameworks for data sharing should be agile and adapted to each context to protect privacy and enable access as appropriate.
* AI development must be collaborative and user-centred to remove bias and improve reliability.
* Robust security systems should be in place to prevent cyber threats and fraud involving AI.

## Aspirations and concerns specific to health, education, crime and policing and energy and net zero

## Health and AI:

### Aspirations

**Free medics from paperwork** e.g. reduce missed appointments, manage NHS transport

**Preventing poor health**

e.g. early years interventions

**Research**

e.g. speed up drug development

**Treatment**

e.g. earlier diagnosis and managing multiple health conditions

Concerns

**Increasing hypochondria**

e.g. data fear mongering

**Risk of de-humanising mental health care**

e.g. chatbot treatment

**AI always watching me** e.g. constant data gathering

**AI as solo decision maker** e.g. for diagnosis and treatment

## Crime and Policing and AI

Aspirations

**Reducing court delays**

e.g. speed up evidence gathering and assessment

**Preventing crime**

e.g. faster identification of crime hot spots

**Cutting re-offending rates**

e.g. connect prisoners with tailored support

**Increasing trust in police** e.g. robust vetting for recruitment

Concerns

**Biased surveillance**

e.g. facial recognition based on biased data

**Lack of transparency** e.g. the data used to inform the models

## Education

### Aspirations

**Tailoring learning and support**

e.g. personalised homework tasks

**Streamlining school admin**

e.g. free school meals

**Helping with teacher workloads** e.g. marking some homework

**Assisting independent learning**

e.g. monitoring home schooling

### Concerns

**Human qualities replaced** e.g. teaching needs empathy and nurturing

**Addictive algorithms**

e.g. shorten concentration

**Increase screen time**

e.g. reducing social interactions

**Safeguarding and bias**

e.g. children interacting with unknown entities

## Energy and Net Zero

### Aspirations

**National Grid optimisation**

e.g. handling multiple renewable energy sources

**Optimising land use**

e.g. combining satellite imagery and other data

**Home energy efficiency**

e.g. smarter smart meters: auto optimisation of energy use

**Improving transport systems**

e.g. monitoring traffic patterns and signals

Concerns

**AI as a net zero ‘quick fix’**

e.g. risk of distracting from existing solutions

**Affordability of AI tech**

e.g. upgrades out of reach for lower income households

**AI energy use**

e.g. using more electricity than it saves

# Introduction

## 1.1 How did the public dialogue come about?

As the new Government develops its AI policy agenda, [ai@cam](https://ai.cam.ac.uk/) wants to bring public voices into the policy conversation. Recent Government announcements show an appetite to promote wider use of AI for public service delivery and policy development. Previous public dialogues suggest people hope that AI could make public services more accessible and efficient, freeing front-line resources to focus on priority tasks, but that they also have concerns about how these technologies are developed and implemented.

[ai@cam](https://ai.cam.ac.uk/) is the University of Cambridge’s flagship mission on artificial intelligence. Leveraging world-leading research across the University, ai@cam will create connections between disciplines, sectors, and communities that can unlock a new wave of progress in AI, for the benefit of science, citizens and society. ai@cam, in collaboration with the Kavli Centre for Ethics, Science, and the Public, commissioned Hopkins Van Mil to design, facilitate and report on this public dialogue on AI for public service delivery.

[Hopkins Van Mil](http://www.hopkinsvanmil.co.uk/) is a specialist social research agency which facilitates consultation, engagement, and research projects. The team creates safe and trusted spaces for productive and engaging discussions on the important issues that matter to us all.

## 1.2 What did the dialogue aim to do?

The purpose of this public dialogue was to explore the role of AI in enabling four of the new missions for Government;

* **Health:** Build an NHS fit for the future: that is there when people need it; with fewer lives lost to the biggest killers; in a fairer Britain, where everyone lives well for longer
* **Crime and policing:** Take back our streets: by halving serious violent crime and raising confidence in the police and criminal justice system to its highest levels
* **Education:** Break down barriers to opportunity: by reforming our childcare and education systems, to make sure there is no class ceiling on the ambitions of young people in Britain
* **Energy and net** **zero:** Make Britain a clean energy superpower: to cut bills, create jobs and deliver security with cheaper, zero-carbon electricity by 2030, accelerating to net zero

Its specific objectives were to begin to co-create a vision for the development of AI for public benefit by:

* Exploring aspirations and concerns for AI’s use in the four Government missions directly focused on service delivery,
* Considering what interventions could help ensure safe, effective, and trustworthy use of AI in these areas.

The findings from this public dialogue will inform the work of ai@cam’s Policy Lab during Autumn 2024, as it engages with questions about the future direction for the UK’s national AI strategy and policy frameworks.

## 1.3 What is public dialogue?

Public dialogue is a process during which members of the public interact with academics, stakeholders and policy makers to deliberate on issues relevant to future decisions.

Public dialogue enables constructive conversations amongst diverse groups of citizens on topics which are often complex or controversial.

Public dialogue was chosen as the format to ensure that participants are given time and a level playing field to discuss the issues that matter to individuals, to communities and to society. Public dialogue is:

* **Informed:** evidence is provided on what AI is, and its current and potential uses, so that participants can give their opinions on where public input adds most value; access is given to specialists in their field.
* **Two way:** participants and specialists all give and take something away from the process.
* **Facilitated:** the process is carefully structured to ensure that participants receive the right amount and detail of information, a diverse range of views are heard and taken into account and the discussion is not dominated by particular individuals or issues.

## 1.4 Who were the participants?

This dialogue involved 40 public participants in total, 21 participants based in/around Liverpool and 19 in/around Cambridge.[[1]](#footnote-2) Both groups broadly reflected the UK population in terms of age, gender, life stage, social grade, household income and ethnicity. The recruitment specialists iThoughts managed the process. Potential participants were asked how much they feel they already know about AI, the extent to which it plays a role in their lives and how hopeful they feel about its future use in energy, crime and policing, education and health, to achieve a range of knowledge and views.[[2]](#footnote-3) Participants received £180 as recognition of their time.

## 1.5 What did participants in the dialogue do?

Before taking part in the day-long dialogue workshop, participants looked at a dedicated webpage which explained the purpose and format of the day. They also watched a video introduction to AI[[3]](#footnote-4) and short videos recorded by the specialists attending their workshop in which they introduced themselves and their research interests in AI[[4]](#footnote-5).

The workshop began with a welcome, introductions and visual voting (Menti) questions. Participants were asked what words came to mind when they thought about ‘artificial intelligence’, and for one concern and one hope associated with AI.[[5]](#footnote-6)

Small groups discussions followed, with the participants on tables dedicated to one of the four government missions: health; education; crime and policing; and energy and net zero. Following small group introductions, participants reviewed a prepared list of current issues[[6]](#footnote-7) for their mission and were asked to add any they thought were missing. Each participant then chose 1-2 issues they wanted to discuss in the context of AI and public services.

Each small group had one or more AI specialists. Their role was to listen to participants and share their knowledge and experience of how AI is and could be used in the mission area. Before lunch, participants gathered together to listen to and ask questions of a specialist panel discussion on ‘what’s needed to help make sure AI benefits society’.

After lunch, participants joined a new mission area and repeated the morning’s activity. The final small group discussion of the day explored the question: what needs to happen for AI to be developed for public benefit? The day ended with next steps and revisited the Menti questions on words associated with AI, concerns and hopes.

## 1.6 Analysis and reporting method

The workshop discussions were audio recorded with participant permission and transcribed. The transcripts were read and analysed by the reporting team (facilitators from the Cambridge and Liverpool workshops). During the writing process, the team met twice to review their analysis and findings. Quotes have been used to illustrate points.

# Overarching public aspirations and concerns for AI in public services

Several common themes emerged from discussions about aspirations and concerns related to the use of AI across the four mission areas; these are outlined here. The specific aspirations and concerns for each mission are examined in detail in the following chapters.

## 2.1 AI helping to reduce administrative burden on over-stretched public services and free up staff time for human interactions

The potential for AI to release nurses, doctors, teachers and the police from repetitive, box ticking paperwork and administration is strongly welcomed by many participants. They hope to see frontline staff freed up to spend more time with patients, pupils and those affected by crime. In turn, they hope that this will increase job satisfaction, reduce levels of workplace stress, and improve retention rates.

*I was talking to a nurse in the NHS the other week, and she was really high up, I think she was like a Band 6 or 7, and she went, "The jobs that I have to do that I shouldn't be doing, and the paperwork that I have to do that I shouldn't be doing, I just want to care for the patients," and I think that's the same with a teacher.* Public Participant, Liverpool

The dialogue’s focus on issues specific to public services, such as workloads and staff retention, shifted discussions away from a more general concern about job losses, which many participants expressed spontaneously in the opening discussions. This concern remained implicit in reflections around the importance of AI not replacing staff, but enabling them to do their jobs more effectively (see below).

## 2.2 AI acting as a co-pilot for human expertise: enhancing but not replacing it

The words ‘co-pilot’ and ‘balance’ often came up during discussions about AI and public services. In many situations, particularly those that are about decision making, rather than administration, participants are clear that they think it is essential that a human is involved. Participants see the benefit of AI helping to analyse large data sets and share findings, but think these should be assessed and applied to real life situations by a human. This is about both judgement and accountability. Co-pilot scenarios include:

* Assessing and reporting on scans for signs of cancer
* Tailoring education materials to school children
* Helping in the selection process for police recruitment

*As long as we don't think it's a solution on its own. It's part of a wider solution. I think it could be a really big help. Although these systems see a lot, they don't see things with human eyes. It becomes really important to have ways that the human perspective can creep back in. Humans can sometimes see things that they don't see.* Public Participant, Liverpool

## 2.3 AI speeding up processes, systems and data sharing for more immediate benefits

Participants saw AI playing a role in accelerating and improving data analysis, with the result that people engaging with public services would experience more effective services, both in terms of speed and quality. Examples of this include:

* Speeding up drug development and maintaining or improving patient safety by using AI to model drug efficacy and potential side effects in different scenarios and populations
* Reducing the time for criminal cases to come to trial through AI analysis of evidence and streamlining of administrative processes
* Assessing applications for special educational needs more quickly to reduce the length of time children wait to receive the support they need
* Managing the national energy grid more effectively, increasing our energy efficiency and self-sufficiency.

## 2.4 Ensuring a shift to AI-enabled services does not exclude or disadvantage people not using digital tools

Choice is important. Participants want non-AI options available to those not using digital tools or those that prefer not to have AI involved in their interaction with a public service. Participants are concerned that the proliferation of AI may lead to greater disadvantage for those not using digital tools.

*I want to see it physically. I want to be able to put it in my filing. I know it might make me sound old-fashioned, but that's my generation.* Public Participant, Liverpool

## 2.5 Exacerbating existing discrimination: a lack of diversity and accuracy in data sources used in AI models

Throughout our conversations, participants questioned how comprehensive and representative the data that AI models are using actually is. The risk of AI systems making mistakes is a serious and worrying prospect, particularly when it comes to decisions about our health, education and public safety.

If AI is data-driven, which it is, how would you be able to stop any false data from becoming part of this AI, basically? If they're taking the data from journals and stuff, obviously that's going to be correct, but there's going to also be a lot of incorrect data out there. How can we differentiate between the two different things? Public Participant, Liverpool

**2.6 Diminishing personal interactions: the need to avoid ‘AI-ing everything’, which could hinder social connection and increase screen time**

Participants find it easy to imagine a future where humankind has become too reliant on AI. They fear the consequences of losing touch with the fundamentals of the human experience, including social connections, contact with nature, and the process of creating ideas, art and objects. Participants are particularly concerned about the impact on children who, through AI, may spend more time interacting with screens and less time experiencing the real world.

*It could possibly dumb down the population if we get that much used to using AI and we're not using our practical skills and our hands and we're just constantly pressing the screen for answers. We're not using our brain. It's like we will, over generations, it's a possibility that we could become a bit stupider [chuckles]. We're going to devolve instead of evolve, basically.* Public Participant, Liverpool

# Health and AI

## Provide medics with insights from data that can inform their decision making, accelerate progress in critical research, and reduce administrative burdens on frontline health workers

## 3.1 Key themes around AI and health

The NHS is under more strain than ever before. This was the underlying theme throughout our conversations on health and AI at both workshop locations. However, participants think that decisions on the use of AI in the NHS should not be made as a quick fix, in desperation, but be carefully planned. Some participants spoke about looking at the use of AI in the NHS and its consequences in the round. They also highlighted the difficulty of introducing new technologies or systems into a resource-constrained environment.

A systematic concern with the way that the NHS is currently structured, and we need to be looking at these things as linked issues. Public Participant, Cambridge

## 3.2 AI aspirations specific to health:

During the conversations between participants and specialists, these areas emerged as significant opportunities for AI to improve the health of the UK and the NHS:

**Preventing poor health** e.g. early years interventions

**Free medics from paperwork** e.g. reduce missed appointments, manage NHS transport

### 

**Research**

e.g. speed up drug development

**Treatment**

e.g. earlier diagnosis and multiple health conditions

### NHS administration and logistical planning: free medics from paperwork, reduce missed appointments, and help prioritise those who need care most

The size and complexity of the NHS, combined with the levels of demand it is experiencing, mean that participants think that there is a clear and uncontroversial role for AI to take on some administrative tasks. A hot topic for participants, particularly in Liverpool, is NHS staff burnout and the numbers leaving the service. They hope that AI systems can help reduce the amount of form-filling and repetitive information-taking by frontline clinicians and nurses and free them up to spend more time with patients.

My wife [an NHS nurse] says that the paperwork side takes longer than the actual care. Public Participant, Liverpool

Participants see the potential for an AI tool to listen to your health appointment and then take notes. They also think AI could make the repeat prescription process more user-friendly, help with medicine adherence, reduce medicine wastage by sending people reminders of when to order repeat prescriptions, and also potentially check that medicines had been taken.

Another area identified for AI is appointment management. Participants think that in a service that is so over-stretched, it is unacceptable that clinician time is wasted by people not attending appointments. They hope that AI could identify potential DNAs or Did Not Attends, and send tailored communication on appointment times to help ensure attendance.

Maybe people who miss appointments, their AI could track their missing appointments, and they could try to contact them via different channels, not only letters that come to the post and see which way they respond better. Maybe AI could study that and then use that channel for those patients. Not the one-size-fits-all for everyone sending the letter. Public Participant, Liverpool

Some participants think because this is an administrative improvement public consultation would not be necessary before introducing AI for appointment management.

If you currently have software that arranges your appointments, you don't ask the public before upgrading the software. It's like that. Public Participant, Liverpool

Participants said they have already seen a trend towards automating or digitising appointments and prescriptions (e.g. myGP app and others) and see AI as a continuation of this.

AI helping to prioritise who needs care most urgently is seen as more complex, compared to those mentioned above, but potentially highly valuable for an over-stretched NHS. The way this would work in practice was not discussed at length (e.g. what data would be used to make prioritisation decisions), but participants think that AI’s abilities to make fast decisions on large quantities of data could be useful in this prioritisation role.

Maybe it was like a triage system because it could stop the buildup on GPs for people who go for colds and just stupid stuff. It'd be like, "No. You don't need this service, just cold and flu tablets," or some tips. Public Participant, Liverpool

With hospitals where you could maybe possibly have a check-in system where before you go to the hospital, you've got to phone, tell them what it is. You run that through the system, which could then signpost you to a more appropriate place. Public Participant, Liverpool

Other administrative and logistical tasks that participants believe could benefit from AI include:

* NHS transport, which could be made more efficient by better planning of patient journeys that currently use taxis; and
* Planning the location and provision of health services, by using, AI to help review complex sets of housing, demographic, health outcomes and other data.

### Preventing poor health: identifying communities at risk and predicting pandemics

The discussion-starters shared with participants at the start of our health conversations focused on current issues, such as difficulties accessing NHS dentistry and poorer cancer outcomes compared to other countries. Even so, opportunities for AI in preventing poor health and care outcomes were discussed and drew interest and support from several participants. In Liverpool, one of the specialists spoke about the city’s Building Attachment and Bonds Service: a service where community psychologists help parents facing difficult situations to avoid having their child taken into care. The success rate was reported to be more than 80%. Participants can see a role for AI in analysing and reporting on different data sets to help identify and support individuals and families in need of early intervention.

It's trying to enhance the whole community, isn't it? Not just a person or an entity. Prevention is always better than a cure. So, if you could put something in place that's going to benefit a whole community, 10 or 15 years down the line if they're all healthy, then that whole community is going to save the NHS ‘X’ amount of money because of the things that were put in place 15 years before. Which could be AI, looking at it and seeing where it's needed and putting the facilities in place to stop the strain on the NHS down the line. Public Participant, Liverpool

Another prevention role for AI supported by several participants is in predicting pandemics early on by using and joining up data to look for patterns of infection and symptoms in the population.

### Treatment: intelligent screening, faster diagnosis, tailored treatment based on better health data

Smarter use of health data is the aspiration that runs through many participant discussions on how AI can improve treatments in the future. Some want to see a more intelligence-led approach to health screening. Rather than being largely age-based, participants hope that AI could be used to analyse people’s health data, including their family history, to target screening based on their individual risk.

If there's a family history of certain illnesses, then you should be called in earlier to get screened for it. Public Participant, Liverpool

There are more contrasting views on the role of AI in determining a diagnosis. A few participants think that if the data for decision making is of a high enough quality, the AI would make the diagnosis and recommend treatment faster and more decisively that several clinicians.

*There’s always a debate on whether to take any surgical intervention, and with a condition like mine, the specialists you speak to are always exceptionally reluctant to take any sort of surgical intervention because they’re almost scared of doing more damage than they would fix. Now, if an AI could suggest to me, “Well actually, it would improve x/y or z outcome to certainty to the 97th percentile,” I’d probably go, “Well, sign me up tomorrow.”* Public Participant, Cambridge

But for most participants, AI is a ‘co-pilot’ for clinicians, because they expect a person to be responsible for a diagnosis and treatment decision.

I wouldn’t just want to rely on the technology for something big like that, because obviously it’s a lifechanging situation. They start the treatment and then later on you find out, “Oh no, actually, it wasn’t.” So, what happens with that? Public Participant, Cambridge

Participants foresee situations where AI has helped an individual gather more comprehensive and accurate data about their condition, through monitoring, to bring to their medical appointment. This would give the clinician more information to identify the most effective treatment.

*We thought AI could track the progression of it. You have evidence and you have notes on yourself to back up everything, but you do eventually have to go to a doctor again.* Public Participant, Liverpool

Complex health problems such as multi-morbidity and polypharmacy are seen to be challenges that are data-rich and time-consuming, and therefore ripe for AI to analyse and offer advice on a personalised basis.

It must be so difficult for GPs to keep track of how medication reacts with other medication on an individual basis. If there's some database that shows all that, then it can only help, can't it? Public Participant, Liverpool

Hopes for AI-enabled treatment go beyond just recommending a medication. Some participants hope to see AI play a role in helping people in a more holistic way, by providing support to make better lifestyle choices. Although they acknowledge that AI is not a substitute for a whole system approach to better health, which would go further than individual responsibility, to include environmental factors, education, incentives and other measures.

### Research: accelerating lab to clinic and tackling complex issues

Given the average time to develop a drug is 13-15 years, participants think that there must be a way for AI to speed up new drug research and maintain or improve the evidence of efficacy, for example by modelling multiple possible scenarios. A small group conversation with a specialist in Liverpool led participants to hope that AI could be used by clinicians and researchers to understand more about the side effects of medicines, including over the longer term, and to explore the potential for re-purposing medications. The idea was that AI could make this type of research more efficient and affordable, and therefore appealing to pharmaceutical companies to carry out.

15 years to develop a new drug does seem ridiculous when you get to 10 years and it doesn't work. AI should surely do something positive about that. Public Participant, Liverpool

The UK’s richness in health data is seen as an opportunity for AI. Participants hope that discoveries around the causes of health conditions and which treatments work best will be accelerated by AI.

The research side of it for diseases and healthcare. I think there are always people who are going through the data collected or doing the surveys or testing and looking at the trends, and that. You could have an algorithm that will look through it for you and it'll look for the stuff. Even the trends, like, why people have died. What medications are working best and what aren't? It takes the human time out of it so it might be a quicker fix. Public Participant, Liverpool

### The need to make joined-up data available for AI within the NHS

Our conversations on the issues faced by the NHS and the hopes for AI led to the topic of sharing individual NHS health data. Some participants were aware of the lack of joined-up data in the NHS (e.g. paramedics not able to see your GP data), but many were not, and were shocked by this potential barrier to the effective use of AI in health. Participants call for data to be shared within the NHS for the benefit of patients, without compromising security and confidentiality or being used for commercial purposes - a guardrail which should be included in legislation.

I find it crazy how that information isn't passed on. It just really saves one's life. I just don't get that. Wouldn't anyone want that passed on? Public Participant, Liverpool

## 3.3 AI concerns specific to health:

Health is a fundamental of life. It is part of the essence of you as a living being. For some participants, AI in health needs to be introduced with great care and should not act without human involvement.

*I think it’s healthcare, which you need to take very seriously. It’s not something like you get a robot or AI to suddenly deal with. It’s your health. Nevertheless, a human can make an error as well, I’m not saying that a human can’t, but it’s just a bit close. If it’s an AI, then I think it should be backed up with a human, which is probably already happening.* Public Participant, Cambridge

When discussing the areas in health where AI has a more limited or no role or potential detrimental impacts of AI, these are the areas that emerged:

**AI monitoring undermining privacy**

e.g. constant data gathering

**AI as solo decision maker** e.g. for diagnosis and treatment.

**Increasing hypochondria**

e.g. data fear mongering

**Risk of de-humanising mental health care**

e.g. chatbot treatment

### AI as the sole decision maker

Participants are clear that humans are more than just the data we produce. They are concerned about AI making the wrong diagnosis or treatment decision by just relying on questionnaire data, for example, and not seeing the person in real life. Participants talked about how ill-equipped AI is to deal with not only poor data quality, but also with any health information a person has chosen, for whatever reason, to exclude. They ask if AI is considering all the factors that a clinician might see during an interaction with a patient.

If somebody has an eating disorder, they could be in denial about it. If somebody has a drink problem, they could be in denial about it, they’re not going to put that on the online questionnaire, whereas the doctor, face to face, could probably figure it out. Public Participant, Cambridge

### Constant AI monitoring undermining privacy

Many participants talked about how AI could gather and make sense of large datasets, including monitoring individuals’ health data. They also thought about what this meant for privacy and the psychological impact of always being tracked.

That was very interesting that you can use those speech patterns and typing patterns and stuff like that. My only problem with that, is that the sci-fi geek in me, that it's like the computer is permanently watching and listening to me. I'm not sure how comfortable I am with that. Public Participant, Liverpool

### Risk of de-humanising mental health

Several participants said that they have more concerns about AI being involved in mental health than physical health. This is because they think that the factors around cause, diagnosis and treatment of mental health conditions are more complex and nuanced than for physical health conditions.

I feel much more comfortable with AI being used for medical cases where there is a physical issue, like with a mammogram, you can see whether someone’s got cancer or not. I feel less comfortable, unfortunately, with it being used in areas like mental health, where things are much, much harder to see and understand. Public Participant, Cambridge

Participants believe that AI cannot replace human interaction as the key mechanism to help understand a person’s situation. However, some do see a role for AI in helping to identify some mental health problems and potentially signposting patients to some interim support. These thoughts were often raised in the context of their knowledge and experience of long waiting times for mental health support.

Mental health is all about someone there speaking to somebody. There is that human interaction when it comes down to mental health. AI is all right for identifying people who've got mental health problems. Definitely, it would never help when you're dealing with it. Public Participant, Liverpool

### Increasing hypochondria or ‘worried well’

A concern raised in both locations is that AI-generated health information, for example through the increasing use of smart watches, could lead to the NHS becoming overburdened by requests and expectations that aren’t based on real medical need.

*One of mates, he’s got one of those smart watches. I don’t know if it’s linked to any kind of AI, but, his smart watch says to him, “Because you’ve had more heartbeats, you need to go to the doctor and get yourself checked out.” If AI is telling me things like that, that’s already playing in my mind.* Public Participant, Cambridge

1. Crime and policing and AI

## AI helping to understand the causes of crime, connect police resources to areas of need, and reduce the time it takes for cases to come to court.

## 4.1 Key themes on using AI within the Criminal Justice System (CJS)

A key message to emerge from discussions across sessions in both Cambridge and Liverpool is that AI should not be used in public-facing or decision-making roles within the criminal justice system (CJS). Participants feel strongly that it should be humans within the CJS that interact with the public and make final judgements and decisions. Participants prefer the idea of AI being used for administrative tasks such as data collection, processing and analysis. Participants are also more enthusiastic about using AI to better understand the root causes of crime and therefore help the CJS use funding in more targeted and effective ways.

Participants in Liverpool and Cambridge spoke about existing low levels of confidence and trust in the police and the wider CJS. Discussions around AI often returned to public perceptions around police misconduct and institutional prejudice, a failure to prioritise crime and antisocial behaviour in poorer communities, and ongoing debates around how police powers should be used in relation to protests, stop and search, and surveillance. Participants argue that far more public discourse is required around what the role of police in our society should be before decisions can be made about how AI should be used by them.

Participants believe that AI could easily be misused if it is introduced in a significant way before society resolves this larger question and addresses underlying institutional flaws within the CJS with better training and a shift in culture. Trust in the police and the CJS must be repaired before the public can be expected to trust these institutions to use AI responsibly and in the public interest.

Participants are concerned that the CJS will focus on how AI can carry out policing tasks focused on punishment and control, rather than on how it can be used to address underlying societal issues that cause crime, like poverty, poor mental health, or a lack of funding in statutory services. Participants would also prefer to see AI used to provide victims and offenders within the CJS with more support, instead of using it to monitor and potentially limit the rights of the public.

*“We need to look at the causes (of crime), we need to do some more thinking and not just start using AI to plaster over them [societal issues].”* Public Participant, Cambridge

## 4.2 Aspirations about AI specific to the criminal justice system

### Preventing crime: data analysis to identify the where and why to inform better prevention

**Increasing trust in police** e.g. robust vetting for recruitment

**Cutting re-offending rates**

e.g. connect prisoners with tailored support

**Preventing crime**

e.g. faster identification of crime hot spots

**Reducing court delays**

e.g. speed up evidence gathering and assessment

The potential of AI to prevent crime, for example in relation to shoplifting, fraud or antisocial behaviour (ASB), was discussed. Participants agree that AI could analyse data on these types of crime to identify patterns and likely locations, and consequently help with the effective targeting of police resources. For example:

* Identifying patterns in large datasets to prevent or intercept fraud
* Featuring ASB hotspots on online maps to help the public avoid or take precautions in those areas.

Participants are less certain about the idea of using AI surveillance to constantly

monitor local areas that experience high levels of ASB or shoplifting. Whilst

participants acknowledge that AI surveillance has the potential to act as a deterrent, it would require human police officers to follow up and make arrests. Participants argue that constant AI surveillance would feel invasive and cannot replace the need for more officers on the street to prevent these crimes and make people feel safer.

While participants acknowledge the potential for AI to find hotpots or patterns of crime from data, they question how this would translate to improved outcomes for communities. Participants do not believe the resources exist to direct more front-line officers to areas of high crime – particularly in communities that already suffer from high rates of crime and ASB – and therefore doubt that AI-enabled police intelligence could translate to real-world action.

Participants are concerned that AI will be used to target ‘blue-collar crimes’, such

as shoplifting or low-level drug dealing, as opposed to crimes committed by more

privileged segments of society, like tax evasion. The preference would be for AI to instead be used to help society better understand the causes and costs of crime. For example, by analysing a range of data sources to understand the links between crimes like shop lifting and ASB with unemployment levels, lack of opportunities for young people, and poverty. AI could then be used to assess potential effectiveness of implementing anti-poverty measures versus tackling low-level crime through the criminal justice system.

*“Why are these people shoplifting? Is it because they can't afford it? Have they got certain habits that they need help with? What are the underlying issues for why this is happening? Let's tackle that. Is there a reason? Poverty? Are they using drugs? What is it?”* Public Participant, Cambridge

### Increasing trust in the police and experiences of policing: improving police recruitment and assessment processes and transparent use in sensitive situations

Participants see the potential role of AI in developing a more effective recruitment system that could help to increase trust in the police. AI could be used to improve processes by:

* More thoroughly vetting the personal details of new recruits
* Supporting the psychological assessment of new recruits (alongside human judgement) to ensure they are placed in appropriate roles
* Through assessments, helping to create tailored training and support packages for each police officer.

*“Trust in the police has been undermined by failures in vetting and appalling misconduct of some officers. I think AI can help this, because the fact is that we, as a society, we know how to compile information. I don't think it should be such a difficult matter to bring the right people into the police force. I think we have the means to do that… AI is about data, isn't it? If we put the right data [into AI] about the people we're employing into the police force, then we most probably can make sure the right officers [are hired].”* Public Participant, Liverpool

Another way AI could be used to address the lack of trust in police is by replacing the role of police officers in situations where police presence can be intimidating. For example:

* Where a victim may want to make a report without speaking to or being questioned by a police officer, for example when reporting domestic abuse or sexual assault. AI apps could be used instead.
* In situations where heavy police presence may be seen as aggressive, for example at a peaceful protest. AI could monitor the protest and reduce the need for immediate police presence.

Participants emphasise that initiatives of this kind would have to be accompanied by transparent communication on how AI was being used and how data would be collected and stored. Participants are clear that using AI in these ways would not necessarily improve trust in the police but improve the experience of the public due to existing levels of mistrust.

### Reducing delays in court proceedings: evidence management, case scheduling and resource allocation

Participants see a role for AI in speeding up the process of gathering, assessing and validating information and evidence to reduce the time it takes for a case to get to court. They also suggest that AI could be used to prioritise and schedule court cases, as well as to effectively allocate available resources. Participants hope that these types of initiatives could help alleviate the distress caused to victims by delays in court proceedings. Furthermore, participants see a role for AI in providing victims with regular updates on the progress and status of a case, to help victims feel informed and acknowledged.

### Help prevent reoffending: identifying ex-offender support services

Several participants took up the issue of the high numbers of offenders leaving prison without links to opportunities for employment, education and training. Participants identified several ways in which they believe AI could help:

* Provide prisoners with assessments to identify a range of different needs in relation to neurodiversity, learning disabilities, psychological disorders or mental health, and determine any relevant and available support.
* Identify and connect prisoners with available educational, training, and skill building opportunities based on their interests and past experiences.

Due to staffing shortages, participants can see a role for AI in supporting prison and parole staff to assess the needs of prisoners and match them with available opportunities and support. AI could also be used to improve the sharing of information between relevant stakeholders providing prisoners with support.

Participants strongly advocate for AI being used alongside staff, acting as a ‘co-pilot’. The role of AI should be limited to making needs assessments and identifying support, but it should be humans providing the support. However, participants do feel that AI could be used to provide prisoners with interactive skill and educational courses, and not just signpost offenders to online courses.

*“I think a lot of the ideas need to be about AI being like a co-pilot to someone. I think it has to be that. So not taking the human away.”* Public Participant, Liverpool

Participants do not want AI to predict the likelihood of reoffending and influence decisions about resource allocation and parole. A specialist gave an example of AI being used to assess how likely it will be that a criminal will re-offend using data from 130,000 prior inmates on gender, age, where they live, and previous convictions. The data provided by the AI model is then used to allocate resources within the prison system and make decisions about parole. Participants raised concerns that an AI programme of this kind would, for example, judge that a criminal would be more likely to reoffend if they came from a deprived area.

## 4.3 Concerns about AI specific to the CJS

**Lack of transparency** e.g. data used to inform the models?

**Biased surveillance**

e.g. facial recognition based on biased data

### Biased surveillance: risk of mistakes based on biased data

The use of AI facial recognition technology in policing is a key concern for participants. Several spoke about how problematic facial recognition could be in terms of accuracy, bias and privacy. Participants believe that the risk of identifying the wrong person is high, and higher still for people of colour, the elderly, women and children. Participants also feel that using AI surveillance to predict suspicious behaviour is problematic. Participants questioned whether AI would be fed data about human behaviour based on biased assumptions about people’s motives and character because of how they walk, talk, dress and act. Furthermore, participants are not convinced that AI would be able to understand context when making judgements on human behaviour.

*“I'm brown skinned and my mouth will move a bit more or I'm constantly fiddling with my foot… I fidget in all kinds of different ways. I’ve got ADHD. If facial recognition would see my brown skin, and then I'm moving differently to other people, will they see me as a terrorist?”* Public Participant, Liverpool

Whilst some participants think the risk of AI facial recognition technology making mistakes is worth it if it leads to catching dangerous criminals, others suggest the accuracy of facial recognition technology must be much higher if mistakes could lead to arresting innocent people or sending them to prison.

Others feel like they need more information about the risks before they can have an informed opinion about the use of AI surveillance in policing. This would require a lot of transparency from government and police forces on how AI facial recognition technology would be used, what data they would source, and how they would store and use new data going forward.

*“It's great if you can catch the odd criminal [with AI surveillance]. But what are we sacrificing for that? We need to be more aware of what we're going to lose. So, people need to honestly tell us what we could potentially lose so that we can all make informed decisions. I don't think anyone really knows exactly what the verifications of this are.”* Public Participant, Cambridge

Participants also said that the use of AI surveillance feels invasive and infringes on the human right to privacy or to protest. Concerns around consent were also shared. Participants believe the public should be able to consent to having their images and information used by facial recognition technology, or to how new data collected about them by facial recognition technology is then used (especially if it is then sold to companies that use that information for profit).

*“We're already seeing the use of facial recognition in other countries picking people out of the crowd in protests, and we've already got some of the strictest anti-protest laws we've had in a while in this country. And I'm just very concerned about [AI facial recognition] being used to infringe on our right to push back. People are out protesting the climate, protesting horrific war crimes happening around the world. And we're going to give the police more power to isolate those people?”* Public Participant, Cambridge

### Lack of transparency: questions to answer

Participants consider openness and transparency to be essential when using AI within the criminal justice system. Concerns were raised that the government would withhold certain information about the use of AI within policing or the wider CJS for reasons such as national security. Participants want transparency on the following questions:

* How is the AI programme developed?
* Who develops the AI programme?
* How will the AI programme be quality assured and continually audited?
* How will the AI programme be implemented?
* What are the objectives and intended impacts of using the AI programme?
* Who decides what type of data will be fed into the AI programme?
* What data is being used by the AI programme and where is it sourced from?
* How biased or inaccurate might this data be?
* How is data created by the AI programme used and will it be sold on?
* Who within the CJS has access to the AI programme data and why?
* How will data be stored and kept secure to ensure not all police have access?

Participants are concerned about a lack of transparency around the data being fed into and created by AI programmes used within the CJS. For example, if data about existing recorded crime is being used by an AI programme, participants suggest that this data will often be biased. For example, following discussions about an AI programme that predicts the likely occurrence of crime in any given area, participants in Liverpool argue that police tend to take more seriously and respond more effectively to crimes reported in affluent areas as opposed to more disadvantaged areas. The AI programme will therefore be fed inaccurate and biased data, and further exacerbate an already prejudiced system. Participants suggest the need for a transparent and open adjudication process for evaluating any data being used by AI programmes within the CJS.

*“The crimes in the less affluent areas, a lot of times, are a lot more serious. Crimes happen more frequently and nothing really gets done. Then something that's just less serious [in affluent areas] is reported and the police respond so much quicker.”* Public Participant, Liverpool

# Education and AI

## AI is useful for teachers, but risks screen overuse and reducing human interaction for students

## 5.1 Key themes from discussions on AI and education

Across all groups there is enthusiasm about the potential for AI to relieve overworked teaching staff of administrative duties. In this context, AI is seen as the right tool to help fix a real problem. In contrast, when it came to the roles AI could play which affect children’s education more directly, participants were very wary of the potential for AI to exacerbate major issues young people are already facing due to screen overuse.

## 5.2 Aspirations for AI specific to education

**Streamlining school admin**

e.g. free school meals

**Tailoring learning and support**

e.g. personalised homework tasks

**Assisting independent learning**

e.g. monitoring home schooling

**Helping with teacher workloads** e.g. marking some homework

### Helping with teacher workloads: reducing admin and increasing time for teaching and pupil support

Participants strongly agreed with discussion prompts that referred to teachers being overburdened with paperwork and student support duties, in addition to their role as educators. This leads to stress, burnout and difficulties with attracting and retaining staff.

*The bureaucracy could be taken off teachers’ hands. I'm sure there's a list of, ‘why am I doing this when it doesn't feel like my job?’* Public Participant, Liverpool

AI could take over or speed up repetitive administrative tasks, allowing teachers to spend more time doing meaningful work with students. Participants suggested AI could help with a range of tasks, including:

* Marking subjects with clear-cut answers such as maths or grammar
* Monitoring marks and progress over time
* Timetabling
* Streamlining lesson planning
* Providing flexible online teacher training so staff don’t miss classroom time
* Taking care of the initial stages of neurodivergence assessments which involve ‘box ticking’ to free up time for special educational needs coordinators to spend with the child
* Communicating with parents; drafting emails, reports and newsletters.

For AI to be genuinely useful to teachers, many participants feel strongly that it should be designed in collaboration with users, and teacher training should be provided (explored more in the sections below).

### Tailoring learning and support to individual students

Many participants spoke about the growing recognition of the need to accommodate neurodiversity and different pupil learning styles in the classroom, which teachers have limited capacity to identify or cater for. AI could be used to help analyse how individuals learn best and where their strengths and support needs lie. This analysis could provide guidance to teachers and students and develop bespoke AI assistance or tutoring in addition to teacher support.

*Use AI to get a personality type of who you are and how you learn best. AI can then implement how to learn that way* Public Participant, Liverpool

Participants also think that AI could also be used to potentially ease the discomfort of certain social interactions or sensory differences amongst neurodivergent children, by providing more individualised ways of learning.

*Kids with ADHD or autism might prefer to interact with an iPad than they would a person, it could lighten the load for them.* Public Participant, Liverpool

### Assisting with independent learning and support beyond the school environment

The increase in home-schooling since the Covid pandemic and the shortage of support and monitoring for home-schooled children led some participants to see a role for AI in:

* Providing guided, managed and user-friendly access to curriculum resources that children could use independently of parents or teachers if necessary
* Regularly monitoring the quality of home education

AI providing emotional support in light of stretched youth mental health services was discussed across the groups. Some participants could see the benefit of a non-judgemental, impersonal and constantly available service from AI ‘therapists’ or chatbots. However, many had serious reservations about safeguarding in this context (see section 5.3)

### Streamlining school-wide organisational systems or administrative tasks

Participants could see AI helping to:

* Manage free school meals provision using government data directly, to ensure all eligible children are automatically included, instead of families going through onerous application procedures
* Draft documents such as job adverts, and sifting and reviewing applications to help with recruitment.

## 5.3 Concerns specific to education

**Safeguarding and bias**

e.g. children interacting with unknown entities

**Addictive algorithms**

e.g. shorten concentration

**Human qualities replaced:** e.g. teaching needs empathy and nurturing

**Increase screen time**

e.g. reducing social interactions

### Teaching and learning require human qualities which AI should not attempt to replicate

Participants feel strongly about the importance of maintaining a nurturing, empathetic and personal approach in teaching.

Teachers are able to ‘join the dots’ between what is going on at school and at home and provide the right support in a sensitive way. Mistakes could be made, and children’s wellbeing affected, if AI becomes involved in this aspect of the role.

*You need people who really know those children and their families. (They) need support in so many different ways, like referrals, breakfast clubs… if you take that away it would be tragic.* Public Participant, Cambridge

Planning and delivering lessons requires nuance, judgement and questioning rather than providing answers. Similarly, accurate grade prediction or assessment of a child’s ability requires a teachers’ knowledge of less tangible aspects of a child’s potential, such as their levels of motivation.

*You could predict that child's going to be an amazing athlete but only a teacher would know if they had the drive.* Public Participant, Cambridge

From a student point of view, the learning process involves exploration, self-expression and making mistakes. Some participants feel strongly that these human elements of learning could be stifled by AI systems driven by quantifiable results.

### Increased use of AI in education could lead to more screen time which risks narrowing learning experiences and affects cognitive, physical and social development.

*Education isn't just about learning, it’s about preparing children for life, and you don't do all of that in front of a screen.* Public Participant, Cambridge

There is a widespread belief across the locations that children today spend too much time on screens. Many participants feel strongly that school should provide time in the ‘real world’ - away from screens. Some participants referred to the Smartphone Free Childhood movement, where school communities are encouraged to help change the norms around children using smart technology, to reintroduce caution and control.

*A lot of parents are beginning to not want their kids to do these things on an iPad. How is a parent going to feel if their children are being taught by AI or spending more and more time on screens?* Public Participant, Cambridge

Specific concerns around AI narrowing the scope of learning include:

* Children losing the motivation to problem solve or produce original work if they are exposed to how easily AI can perform these tasks for them
* Time spent on screens means less time engaging in the rich variety of human interactions needed to develop essential social skills and build confidence
* Practicing hands-on skills needed for creative or manual work could come second to screen-based learning, leading to skills shortages.

*If everything's just touch and swipe, it's taking away practical, hands-on learning. Things in life are still going to need building and making.* Public Participant, Liverpool

### Mental health problems and feelings of isolation could worsen with a reliance on AI

Some participants are concerned that AI could further expose children to algorithms designed to hold their attention, which could cause addictive behaviour and shorten concentration spans. Many participants pointed out that children are already suffering from social anxiety, depression, phobias or behavioural problems, which they connected to spending too much time isolated in front of screens.

*It’s having a negative impact on people's mental health. Kids are becoming agoraphobic and they don't want to go into social situations.* Public Participant, Liverpool

### The nature of AI as a new technology which can impersonate others raises serious safeguarding issues

By its very nature, AI can involve individual children interacting with an unknown entity which is impersonating a human or a character. Some participants believe that this scenario puts children at risk of manipulation and abuse, especially in the context of AI therapy bots or virtual friends. Children could be sharing sensitive or personal information and receiving inappropriate responses, or unknowingly interacting with someone who has hacked into the system.

*Who is it she's talking to? I don't know what questions she's asking, it might not be appropriate answers that she's getting back. My fear is if someone's looking at her without her even knowing.* Public Participant, Liverpool

In the context of children’s safety, participants are troubled by what they see as a current lack of transparency and regulation around AI.

### Problems of bias and inaccuracy are particularly salient in an education context

Participants are concerned about unreliable sources or discriminatory language infiltrating educational content. Where AI replicates biases, breaking the cycle of poor outcomes could be harder for certain groups of children, in the case of predicted grades for example.

*Even if you just have pupil premium next to your name this can have an effect on predicted grades.* Public Participant, Cambridge

1. Energy and net zero and AI

## Increased energy efficiency could benefit society, but questions remain about whether AI will help us reach net zero

## 6.1 Key themes for AI and energy and net zero

Participants across all groups were very interested to hear about the ways that AI could improve efficiency across the energy sector and provide tangible benefits in their daily lives, such as by reducing household bills. However, questions remained about AI’s contribution to reaching net zero. There was a sense that more fundamental ongoing issues should be prioritised over the uptake of new technology as a ‘quick fix’ to the climate crisis, and that the energy used by AI itself could contribute to the problem.

## 6.2 Aspirations specific to net zero and energy

**National Grid optimisation**

e.g. handling multiple renewable energy sources

**Optimising land use**

e.g. combining satellite imagery and other data

**Home energy efficiency**

e.g. smarter smart meters: auto optimisation of energy use

**Improving transport systems**

e.g. monitoring traffic patterns and signals

### Improving home energy efficiency: reducing bills and alleviating fuel poverty

In the context of the cost-of-living crisis and increases in household bills, participants across all groups are positive about the potential of AI to help reduce energy costs, including:

* AI helping to analyse home energy performance and suggesting improvements, from the level of individual households to entire regions
* Even smarter ‘smart meters’ helping people understand and manage energy consumption better, use energy at the most economical times and even making optimisations automatically.

Several participants suggested that AI could improve take up of government support by matching households with government schemes and/or tradespeople:

* Home energy costs could be analysed alongside census data to identify where financial support is needed and ensure it reaches all those that qualify
* Navigating complex home energy upgrade schemes could be made easier by AI informing and connecting eligible households and local suppliers.

### Updating and centralising the national grid for efficiency, sustainability and resilience

When choosing issues to discuss, many participants focused in on needing to update the National Grid to meet the increasing demand for electricity, integrating more renewable energy sources and achieving as much energy independence as possible.

Participants see AI having the capability to optimise an increasingly complex energy system, suggesting it could:

* Process huge volumes of smart meter data and balance supply and demand flexibly and quickly
* Incorporate multiple renewable energy sources of various scales and manage the variability of wind and solar
* Streamline the development of new renewable energy projects; speeding up impact assessments and providing visual simulations to help stakeholders understand changes so informed decisions can be made faster
* Identify possible risks and faults in nuclear energy systems, which could be missed by humans
* Centralise a fragmented system by removing bureaucracy, duplication of work or by predicting and alleviating supply chain issues to increase resilience.

*Everybody being able to generate on their roofs or in their gardens, selling energy from your car back to the grid, power being thrown different ways at different times. You’ve got to be resilient and independent.* Public Participant, Cambridge

### Optimising transport systems to reduce emissions and save time

Many participants complained about problems in our transport system and the difficulty of reducing personal transport emissions. Participants suggested that AI could:

* Monitor traffic and improve navigation systems so drivers take the most efficient routes
* Improve the efficiency of public transport
* Run ride-sharing apps to reduce fuel waste
* Connect with electric vehicle infrastructure to assist with journey planning.

Some participants also see a role for AI in optimising electric vehicle technology and fuel efficiency.

### Optimising land use, town planning and carbon accounting

AI using geospatial data to contribute to optimal land use in the context of net zero goals is supported by several participants. For example, by identifying locations for renewable energy generation, or measuring the potential emissions of a particular industrial or commercial site.

*Through satellite data you could see whether or not green spaces were being used and whether or not farming land was being used for its best benefit. As in, do you grow agriculture there, or do you just put a shed load of solar panels or wind turbines in there? That's where the AI comes in because it could do the maps.* Public participant, Liverpool

## 6.3 Concerns specific to net zero and energy

**AI energy use**

e.g. using more electricity than it saves

**Affordability of AI tech**

e.g. upgrades out of reach for lower income households

**AI as a net zero ‘quick fix’**

e.g. risk of distracting from existing solutions

### Focusing on technological fixes could distract from more effective solutions or even contribute to the climate crisis

In different ways, participants across the groups are concerned about the potential for people in power to view AI as a ‘quick fix’ to help reach net zero. This is raised in the context of government responsibility for making tough decisions in order for the UK to reach its net zero target.

*Is the infrastructure not a more important aspect than putting in AI systems? Government for years now has known that we need that infrastructure, but it's always been someone else's problem, the next government to sort out.* Public Participant, Liverpool

Many participants pointed out that electric or autonomous vehicles require a great deal of energy and finite resources to manufacture. Some suggested that less glamorous but more impactful solutions such as fixing public transport should be a priority.

*Whenever I think about autonomous vehicles I just keep thinking, ‘it would be nice if the trains just worked, or the buses.’* Public Participant, Liverpool

Learning about the amount of electricity AI itself uses led participants across all groups to question whether AI would be a net contributor of emissions and worsen the problem.

### The affordability of AI technology and its sources of funding

The question of who would pay for large scale technological upgrades came up in every group discussion. Many participants are concerned that the burden would fall on the taxpayer, or that only people who could afford to make upgrades would be able to reduce their emissions or benefit from the technology.

*Not all households can afford installing a smart system in their house or more insulation or whatever. The people who get the technology are not the people who are in fuel poverty.* Public Participant, Liverpool

# AI in public services: Expectations for guardrails and interventions

In the final hour of the workshops, participants talked about what needed to be done, and by whom, to bring out their aspirations and avert their concerns in relation to AI in public services.

## 7.1 Broad public understanding on AI is needed

*We're all a part of it. We're all using it every day and we don't even realise that we're using it.* Public participant, Liverpool

A key theme emerging from all the groups is that AI has a growing influence in everyday life, yet the public have very little knowledge about how it works or who is responsible for it.

Participants want Government departments and AI developers to provide training and public information to bridge this knowledge gap across society. This included calls for:

* AI to be part of the national curriculum so children learn from a young age about how it works, what it can be used for, what the dangers are and how they can protect themselves
* Quality teacher-training to ensure responsible adults know as much as young people about new technologies, so they can provide guidance and ensure AI is not undermining learning or wellbeing.
* Workplace training across the public sector and beyond to cover the functionalities and pitfalls of AI so institutions and businesses can make informed decisions about how best to harness the technology.
* Public information campaigns in traditional and social media to provide easily accessible information about the principles and risks of AI, who is providing it, what data is being collected and why, and how to opt out of using it.

## 7.2 Independent regulatory bodies with sufficient powers should govern and monitor the use of AI in each sector

Participants across all groups expressed low levels trust in both national Government and the tech industry. Many participants believe that weak or non-existent regulation, vested interests and profit-making motives, lead to a situation where large, globally mobile corporations have free reign to develop AI in ways which benefit their own interests above those of the general public.

To harness AI in public services for the benefit of society, participants across all groups called for a collaborative, democratic approach to establishing independent regulatory bodies.

*Make sure AI is in the community (…) a community which is made up of a lot of individuals’ interests rather than some big business’s interest to maximise profit* Public participant, Cambridge

They suggested that governance should that involve representatives of all stakeholders in each sector:

* **Government** representatives to provide centralised leadership
* Regulators with power to intervene to shape AI development and use
* **Developers** and businesses for the technical, industry and delivery expertise
* **Universities** to provide impartial evidence
* **Charities, advocacy groups and public sector staff** to bring lived and user experience to ensure AI works for the communities involved
* **Ordinary citizens**, including children and young people, to include the opinions and perspective of the general public.

Participants hope that regulators would have the power to impose and enforce restrictions and not just provide guidelines. Participants suggested that they should be responsible for:

* **A code of ethics:** guidelines for the use AI in the public sector, with a clear scope, vision and values.
* **Transparency:** ensuring information is in the public domain around who is involved in providing AI, what data is being gathered, and how it is being used.
* **Accountability:** clear lines of responsibility for when mistakes are made where AI is involved, and what the sanctions are.
* **Consent and choice:** ensuring that institutions and members of the public have the choice over whether AI is used in particular circumstances. Alternatives must exist for those who need them and the option to withdraw must exist if AI proves problematic.
* **Evidence:** uses of AI in each sector must be based on proof of its benefit to the public. Targets must be set, and results monitored and acted upon.
* **Impartiality:** biases must be actively pre-empted, monitored and removed.
* **Security:** those with the expertise need to feed into security concerns on an ongoing basis to ensure it is adequate.

## 7.3 Legislation must be in place to guard against technology companies’ influence over public services and profit being prioritised over public service quality

*Fears about robots taking over are a distraction, it’s not the Terminator we should be scared of, it’s the big companies having all the power.* Public Participant, Cambridge

There is particular concern amongst participants that decisions on the uses of AI in the public sector are motivated by profit rather than by benefit to society. Many participants want to see robust legislation, enforcement, and penalties to ensure appropriate and effective control over the ways AI companies operate in public services, to ensure:

* Personal data from public services is never used for commercial gain
* The use of AI in public services is based on robust evidence of benefit to the public
* Corruption and vested interests are unable influence the uses of AI in public services
* Efficiency savings made by AI in public services are reinvested in the sector
* Competition laws are sufficiently robust to tackle monopolies in the tech industry.

## 7.4 AI development must be collaborative and user-centred to remove bias and improve reliability

Many participants feel strongly that measures must be put in place to ensure that AI outputs are equitable, inclusive and impartial, and not based on biased, incomplete or simplistic data. These measures should ensure:

* Diversity and representation in the design and monitoring of AI systems. Participants suggest ensuring that teams working on AI design in the private and public sectors are from a broad a spectrum of backgrounds.
* Inclusion of underrepresented sources including language and images, to tackle normative limitations and assumptions in the development and use of AI systems.
* Collaborative, user-centred, ongoing design. Participants feel strongly that frontline staff in public services, along with managers and service users, should be actively involved in design. They hope that this will maximise the quality, sophistication and impartiality of outputs, on an ongoing basis.

## 7.5 Data sharing regulation should be agile and adapted to each context to protect privacy and enable access as appropriate

In discussions about the tensions between protecting privacy and the benefits of data sharing, many participants recognise that regulation should be context specific. The principles of consent and confidentiality should be foundational, but flexibility should be built in where data sharing within a particular service benefits the public. For example:

* Sharing data across the health system could enable faster and safer decision-making, especially in emergencies.
* In the case of managing energy systems, some participants feel that tackling fuel poverty and providing support to the most vulnerable is of greater benefit than blanket protection for confidentiality, especially where data is not considered sensitive or personal.

## 7.6 Robust security systems should be in place to prevent cyber threats and fraud involving AI

A key concern for participants is the volume of personal data being brought together by AI, and the concentration of power that this entails. Many participants expressed concern that the stakes are incredibly high if essential systems in the public sector fail or are compromised by nefarious actors. Robust security systems and back-up plans must be in place, with clear lines of accountability if systems are compromised or crash.

On a more individual level, many participants are concerned about the nature of AI enabling fraud and impersonation, which requires specific new legislation and penalties.

**7.7 Developing the policy response**

Across all groups, participants called for a more democratic approach to the use of AI, including the provision of public information and education, and stakeholder collaboration in regulation and design. There is an expectation of seeing the development of robust regulation of AI to harness the technology for the benefit of the public rather than all benefits accruing to the tech industry.

*AI needs to be managed, not just by the private companies, the Government need to manage what’s going on, not just give AI a free reign.* Public Participant, Cambridge

1. 21 participants were also recruited in Cambridge; however, 2 participants could not attend the workshop due to unforeseen circumstances on the day. [↑](#footnote-ref-2)
2. Appendix A has a detailed breakdown of participant demographics and attitudes [↑](#footnote-ref-3)
3. [5 things you really need to know about AI: BBC Ideas](https://youtu.be/3QaYKXOAffA?si=cTaip4sMVaf4oNB3) [↑](#footnote-ref-4)
4. Appendix A has a list of the specialists and their roles [↑](#footnote-ref-5)
5. Appendix D has the Menti responses [↑](#footnote-ref-6)
6. Issues were drawn from the Labour party manifesto and other policy/think tank papers on each of the four mission areas. [↑](#footnote-ref-7)