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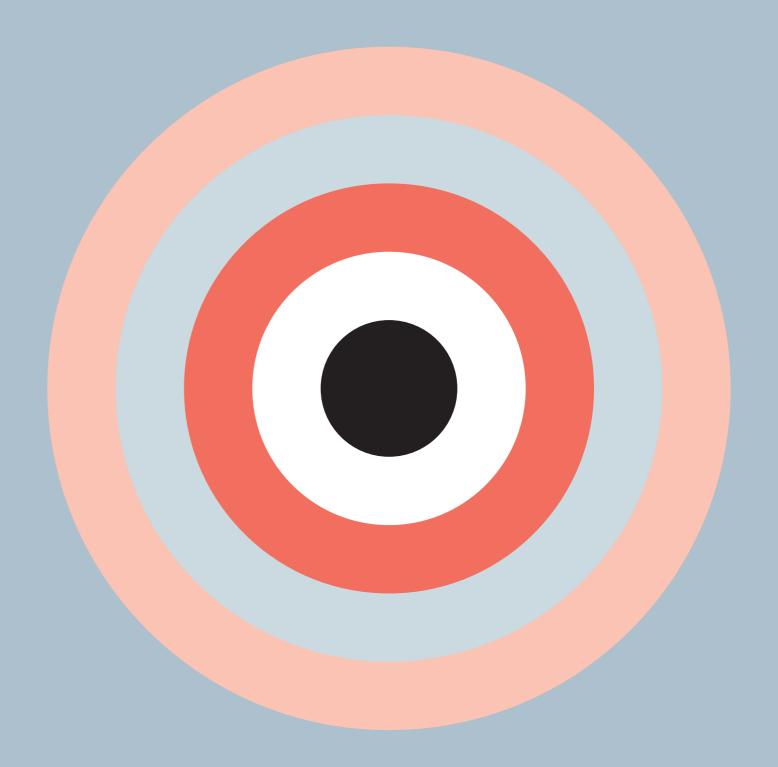
The Ada Lovelace Institute is funded by the Nuffield Foundation, an independent charitable trust with a mission to advance social wellbeing. The Foundation funds research that informs social policy, primarily in education, welfare and justice. It also provides opportunities for young people to develop skills and confidence in science and research. In addition to the Ada Lovelace Institute, the Foundation is also the founder and co-funder of the Nuffield Council on Bioethics and the Nuffield Family Justice Observatory.





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Strategy 2021–24



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Ada Lovelace Institute Strategy 2021–24

The Ada Lovelace Institute (Ada) is an independent research institute with a mission to make data and Al work for people and society.

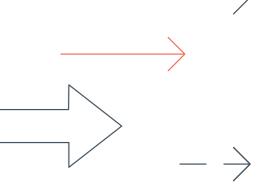
We are working to create a shared vision of a world where Al and data are mobilised for good, to ensure that technology improves people's lives. We take a sociotechnical, evidence-based approach and use deliberative methods to convene and centre diverse voices. We do this to identify the ways that data and Al reorder power in society, and to highlight tensions between emerging technologies and societal benefit.

We have six strategic goals that focus our activities on enabling positive applications of data and Al. These support wellbeing, justice and equity in human society, and create a sustainable future vision for emerging technologies.

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About us

Ada was established by the Nuffield Foundation in 2018, in partnership with expert UK organisations: the Alan Turing Institute, the Royal Society, the British Academy, the Royal Statistical Society, the Nuffield Council on Bioethics, the Wellcome Trust, techUK and Luminate.

We aim to...

 Ensure that data and Al work for people and society, and that the opportunities, benefits and privileges generated by data and Al are justly and equitably distributed and experienced.

We do this by...

- Convening diverse voices to create an inclusive understanding of the ethical issues arising from data and Al.
- Building evidence to support rigorous research and foster informed debate on how data and Al affect people and society.
- Shaping and informing good policy and practice
 to prioritise societal benefits in the design and deployment
 of data and Al.

We have six principles that guide our work:

Independence

We are independent of government and industry. This means we can determine the focus and content of our work and take a long-term view, mapping, observing and critically examining complex systems.

Quality, rigour and credibility

We begin our research from a position of empirical curiosity and critical awareness of power dynamics. Our work is grounded in robust evidence, expert analysis and interdisciplinary commentary.

Our endeavour is an inclusive and collaborative one. We believe that diverse, interdisciplinary approaches produce better outcomes, and so we seek to propagate a diverse team and work hand-in-hand with partners from across sectors and disciplines. We are transparent about relationships and funding.

Connectivity and diversity

We situate our work in a nuanced understanding of national and international developments, employ comparative approaches, recognise and celebrate difference, engage in international debates and participate in discussions about global governance.

Timeliness, relevance and impact

Our ambition is that our work will be consequential in the medium and long term. Our mission to create positive change shapes the types of interventions we select, who we engage with and the speed at which we produce outputs.

Monitoring, evaluation and learning

We recognise our work exists in an environment of emergent change.

We encourage evaluative thinking, open sharing of successes and failures, and engage in thoughtful reflection and learning.

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Becoming Ada

Ada was established with three objectives relating to data and AI:

- 1 to provide the intellectual underpinning and long-term perspective to frame and anticipate ethical issues
- to act as an independent voice, speaking on behalf of the public interest and society
- 3 to inform thinking of governments, industry, public bodies and civil society organisations, in the UK and internationally.

In our first three years of operation, we have:

Pre-empted initiatives to ban or regulate biometrics technologies with a national survey of public attitudes to facial recognition, by convening the Citizens' Biometrics Council and commissioning an independent review of UK law.

Built a respected Board of 9 multidisciplinary, cross-sector experts, and an executive team of 16. Become a recognised and trusted voice on pandemic technology globally by convening rapid, expert deliberations to shape data-driven and technology interventions rolled out worldwide in response to the COVID-19 pandemic.

Convened more than 60 events, workshops and roundtables, and commissioned or published more than 80 blog posts.

Contributed to the development of a suite of algorithmic accountability methodologies such as audit, impact assessment and regulatory inspection, encouraging socio-technical approaches to accountability. Published 18 reports, briefings, primers or syntheses.

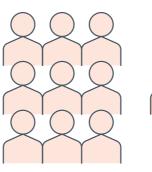
Developed a range of partnership projects with the The Health Foundation, the Alan Turing Institute, the University of Exeter's Institute for Data Science and Al, the Bingham Centre for the Rule of Law, Al Now and Data & Society.

Given evidence to parliamentary committees and seen our work cited in academic journals, government reports, and national and international media. Established, with the support of the AHRC, a fellowship programme to support scholarship on racial justice and AI, as part of the JUST AI project.

Building this organisation, we have learned that:

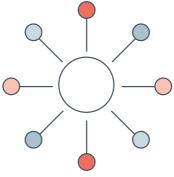
Independence is our defining quality

With core funding from independent trusts and foundations, we have a unique perspective and platform.



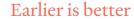


Diverse and plural disciplines, perspectives, backgrounds and methodologies are a critical foundation for every research project we undertake, and for our organisational culture.

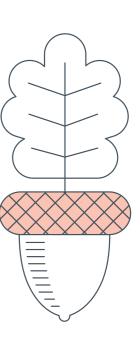


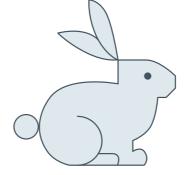
Impact is achieved both through short-term, quick interventions and longterm, intensive research

Our choice of methodology responds to the domain or practice we are seeking to understand and influence.



Where possible, interventions during emerging data and Al policy and practice formulation are more effective than working to change existing policy and practice.





How we work

We build evidence

We use a range of methodologies to document, interrogate and understand the design and deployment of data and AI technologies, and to assess their benefits and harms.

These include:

- expert working groups and roundtables
- public attitudes research
- deliberative methodologies with people affected by emerging technologies, such as citizen juries and mini-publics
- ethnographic studies of data and Al technologies in use or development
- · literature reviews, landscape mapping and synthesis of existing research
- global comparative research, examining policies and practices across countries
- horizon scanning and futures work
- research partnerships with researchers and technology developers.



Examining the Black Box: Tools for assessing algorithmic systems

A synthesis report by Ada and DataKind UK identifying common language for algorithm audits and impact assessments.



Exploring legal mechanisms for data stewardship

A joint publication with the Al Council, and the output of a working group that explored three legal mechanisms that could help facilitate responsible data stewardship.

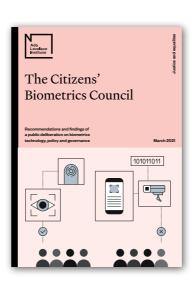
We build evidence so that...

- Debate is informed by independent evidence about how data and Al might be exacerbating asymmetries of power, impacting on people and society, and changing the relationship between citizens and governments.
- Discourse is informed by independent evidence about how people, particularly the most marginalised, experience and view data and Al.
- Short- and long- term technical, legal and policy solutions are developed to distribute the benefits and mitigate the problems posed by data and Al.

We convene diverse voices

Convening is central to the work of the Ada Lovelace Institute, and we interpret it broadly to include:

- digital and physical roundtables and workshops that bring together a diverse and interdisciplinary set of practitioners, researchers and policymakers for expert discussion and deliberation
- **digital and physical public events** which provide a platform for a range of perspectives, exposing ideas to a broader cross-section of expert audiences and the public
- active curation of the Ada Lovelace Institute's blog as a site of interdisciplinary exchanges between researchers and experts
- public deliberation initiatives that bring together people affected by emerging technologies with experts to deliberate on contentious and challenging issues.



Citizens' Biometrics Council

A mini-public comprised of 50 members of the UK public, convened in-person and remotely over the course of a year to discuss 'What is and isn't okay when it comes to biometrics?'



Confidence in a crisis? Building public trust in a contact tracing app

Convened during the first COVID-19 lockdown, this rapid online deliberation, conducted with Traverse, Involve and Bang the Table, brought in 28 members of the UK public to develop recommendations on COVID technologies such as contact tracing apps.

We convene diverse voices so that...

- Research and debate on data and Al are characterised by interdisciplinarity and include diverse perspectives.
- Understanding and trust are built between organisations and institutions, to foster the environments and capacity needed to create positive change.
- Civil society organisations are empowered with new knowledge, and advocate for change on behalf of people and society as a whole.

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We shape and inform policy and practice

We seek to ensure that all our research is influential in shaping the policies and practices of data and Al.

In order to ensure that our work informs priorities for policy, law and regulation of data and Al, we:

- intervene early and deeply: we are selective and focus primarily on engagement early in policy development, drawing on extensive research, legal analysis or deliberation
- work in partnership: we develop relationships with decision-makers and sectoral partners
 to shape development and practice on the ground
- **bring sociotechnical perspectives:** we draw on multiple disciplines and perspectives to ensure policy, legal and regulatory developments are informed by a range of evidence and approaches
- build tools and capacity: we acknowledge the novelty and challenge of evolving data and Al tools, and support building critical understanding and shared approaches through briefings, tools and support frameworks.



Getting data right: perspectives on the UK National Data Strategy 2020

With the Open Data Institute, the Royal Statistical Society, the Institute for Government and the Centre for Public Data, we convened a workshop series and published a report to shape the UK's National Data Strategy 2020.



Checkpoints for vaccine passports: Requirements for governments and developers

Using a public call for evidence, a rapid expert deliberation and a series of public events, we developed an extensive analysis of COVID-19 status certification and a range of recommendations to guide the development and deployment of vaccine passports.

We shape and inform policy and practice so that...

- Policymakers change or adapt current or developing policies, or create new policies, that take account of impacts on people and societies.
- Technology creators seek out and adopt better practices, processes and business models.
- Regulators review, adapt or create and enforce new regulation, and have the capacity to adopt new tools and practices for accountability.

Our research also aims to interface with data and Al research and practice by:

- moving from theory to practice: our research seeks to contribute to positive changes in the prevailing attitudes, norms, discourse and patterns of organisational behaviour in industry, research and the public sector
- intervening early: we prioritise sites of study and projects that are focused on early-stage technology design, with the aim of minimising 'ethical debt'
- building a body of evidence of 'ethics in practice': we develop evidence about the kinds of practices, methods, and emerging technologies in use
- identifying power dynamics and asymmetries: we seek to create more proximity
 between those who create technologies and those affected by them, to ensure
 data-driven technologies and infrastructures improve outcomes for people and society.

Our approach to public engagement

Public engagement – the use of participatory and deliberative methodologies to amplify the voices of people affected by data and Al – is key to Ada's mission to build evidence, convene diverse voices and influence practice and policy.

Our public engagement strategy has four elements:

- 1 strategic projects and public attitudes research
- 2 deliberative and participatory public engagement
- 3 participation in practice, working with industry and the public sector
- 4 thought leadership and advisory capacity building on the use of participatory and deliberative methods.

Ada's approach to public engagement follows these objectives:

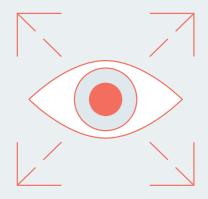
Place the purpose of engagement before the method: we will always have a clear articulation for why and how a particular method has been chosen to address a challenge or research question, and will be led by the evidence base, gaps in the research and analysis of where an understanding of people's views and perspectives are missing.

- Amplify the voices and represent the perspectives of excluded, marginalised and underrepresented people: we will identify who is most impacted by data and Al but least represented in debates, and ensure their perspectives are included and heard through our public engagement, so that lived experiences are reflected in the evidence base we build.
- Innovate in public engagement: we will explore and develop a range of innovations in approaches to public engagement; and use monitoring, evaluation and learning to understand the impact of our work.
- Develop collaborations and partnerships: we will
 use our credibility and platform as an independent
 research and deliberative body to connect publics
 with power holders.
- Safeguard against instrumentalising public engagement: we will partner only with those decisionmakers who demonstrate that they are committed to using public-engagement methodologies, and will listen and respond to outcomes.

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Strategic goals 2021–24

These strategic goals reflect our priority issues over the coming years. They cut across all our work and will define where we direct our attention, and how to allocate our resources and measure our success.



Interrogate inequalities caused by data and AI

We will explore how the adoption of data-driven technologies affects inequalities, and how unequal representation in, or access to, data-driven technologies exacerbates exclusion and disenfranchisement.

How will we know if we've succeeded?

- The unequal impacts of data-driven technologies on marginalised and vulnerable communities will be better understood and prioritised by policymakers and technology developers.
- · Attention to the impact of data and AI on social and health inequalities will be given high priority at the inception of policies and technologies.
- Solutions and interventions to improve the outcomes of data-driven technologies for vulnerable and marginalised communities.

Rebalance power over data and AI

We will develop, test and propose practical, regulatory and legal accountability mechanisms to rebalance power in data and Al systems. Mechanisms include auditing approaches, impact assessment, oversight bodies, regulatory practices, and national and international legal instruments.

How will we know if we've succeeded?

- Regulatory initiatives in the UK relating to data and Al will incorporate accountability mechanisms such as auditing, independent oversight and impact assessment.
- Public-sector bodies will adopt best practice in auditing and impact
- · Regulators' capacity to adapt their mandates to the new challenges of data and Al will increase.
- Domestic and international AI regulation regimes will incorporate effective accountability mechanisms in line with Ada's research.



Amplify the voices of people

We will ensure that public opinions, attitudes and concerns are presented in and inform debates about data and Al, using a range of methods, from surveys to deliberation and co-design.

How will we know if we've succeeded?

- Public engagement and deliberation will become an accepted component of data and Al policy development.
- · Technology developers will incorporate participatory methods and user co-design in development pipelines.
- · Participatory methods of data stewardship will be trialled and used in public- and private-sector technology deployment.
- A deeper understanding of public perspectives will inform better policy and practice in public- and private-sector uses of data and Al.

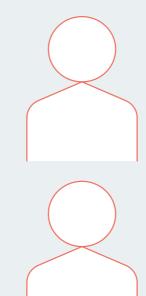
Promote sustainable data stewardship

We will intervene in the early stages of the development of data and Al technologies and policies to share established best practices in data stewardship - responsible and trustworthy data governance and practice.

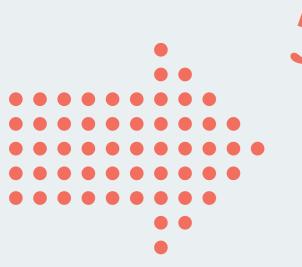
How will we know if we've succeeded?

- We will have generated replicable case studies on best-practice methods to for ethical use of data, which shift power imbalances towards people.
- Organisations will begin to adopt innovative legal and participatory mechanisms to govern their data, and will pursue business models that have a sustainable approach to data.
- · Alternative regulatory, legal and technical structures for governing data will be under discussion in policy arenas.









Anticipate transformative innovations

We will work to foresee emerging cognitive technologies and sector transformations, and develop early, interdisciplinary understandings of their potential impact on individual and societal wellbeing, equity and justice.

How will we know if we've succeeded?

- We will lead the field in developing comprehensive, timely and informative primary and synthesis research to guide policy and practice on emerging cognitive technologies.
- Curious, critical attention will be directed to new applications, business and governance models and transformative trends before they become subject to mainstream debate.
- Novel ideas for alternative future paths for technology and policy development, drawn from multidisciplinary and cross-sector thinking (including disciplines traditionally overlooked by policy and practice) will be generated, discussed and elaborated.

Create space for diverse scholarship

We will contribute to building the field of 'Al ethics', facilitating interdisciplinary scholarship, research and understanding through convening discourse, analysis and research partnerships, and supporting research through commissioning and fellowships.

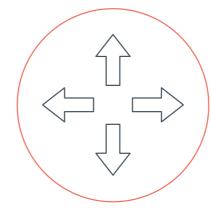
How will we know if we've succeeded?

- An expanded array of experts, researchers, partner organisations and practitioners will be involved in and engage with the work of the Ada Lovelace Institute.
- The capacity of researchers and practitioners to connect across disciplines and sectors will be enhanced.
- The capacity of experts and organisations to expand beyond their remit and discipline will be enhanced.

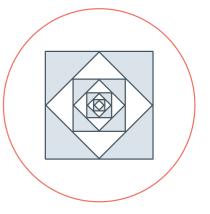


Our research agenda

Our research has three distinct categories, with different purposes:







Responsive research

An agile response function with a focus on convening, commentary and informing current debates.

Pathfinder projects

Short- to medium-term research projects that explore particular issues or evidence gaps, often in partnership or externally funded. They may give rise to longer-term programmes.

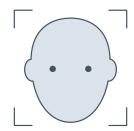
Programmes

Substantial research initiatives, informed by Board input, that seek to inform a major domain, trend, technology or sector transformation. Programmes will change over time but will generally last for two to four years and culminate in a final report.

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Current programmes

We have five current research programmes:



1 Biometrics

We anticipated the major regulatory push around biometrics technologies and developed a suite of research that speaks to public attitudes to the use and governance of biometrics. We undertook the first national public attitudes survey on facial recognition and conducted a year-long public deliberation. In 2022 we will publish the Ryder Review, an independent review of the governance of biometrics, and inform the development of regulatory proposals in the UK and Europe.

Public-sector use of data and algorithms

We examine the use of data and algorithmic decision-making systems in the delivery of public services. We have contributed to the development of transparency frameworks and interrogated the state of public-sector algorithm accountability policies worldwide. In the coming years we will contribute to a public dialogue on the use of location data in the public interest and publish a major study documenting the use of predictive analytics by local authorities.



The future of regulation

We seek to inform emerging and future approaches to the regulation of data and AI with innovative narratives and transformative ideas. We focus on the future regulation of data and have established the Rethinking Data Working Group to develop ideas about countervailing visions for the use and regulation of data. In the coming years, we will seek to inform the development of the EU AI Regulation, the first comprehensive regulatory framework for artificial-intelligence technologies.

Health data and COVID-19 technologies

We study the datafication of health, and the increasing use of data-driven systems in the health and social care system, accelerated by the COVID-19 pandemic. We will continue to track the rollout of data-driven systems in response to the current pandemic, assessing and documenting their long-term legacy, and researching the impact of data-driven systems on health and social inequalities.





Ethics and accountability in practice

We have developed a suite of research projects that sit upstream of forthcoming policymaking around the use of certain tools and practices to improve the ethics and accountability of algorithmic and AI systems. We have been instrumental in contributing to emerging thinking on best-practice approaches to regulatory inspection of algorithms, algorithmic audit and impact assessment, and to stimulating discussion about evolving research ethics processes to take better account of the ethical challenges posed by artificial-intelligence and data science research.



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Pathfinder projects

We have four pathfinder projects underway:

AI and genomics

With the Nuffield Council on Bioethics, we will undertake a horizon-scanning project focused on the ethics of AI and genomics, with a view to identifying emerging and future trends in AI genomics research and innovation and its application, and clarify the potential ethical and societal issues raised.

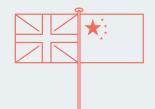


Ethics of recommendation systems

In collaboration with BBC
R&D, we are exploring
how public-service values
can be embedded in the
development and deployment of
recommendation systems and
personalised content-delivery
systems.



WK-China intercultural conversation on ethical AI



We will explore with partners convening a series of workshops with the Chinese Academy of Sciences, looking at a range of ethical issues in the context of specific applications of Al. 4

Climate justice, data and AI



After working with the JUST AI project in 2020 to explore a range of issues at the intersection of AI and sustainability, we will identify potential policy interventions to ensure AI development reinforces the climate justice agenda.

JUST AI, in collaboration with the AHRC

JUST AI (Joining Up Society and Technology in AI) is an independent, humanities-led network that seeks to understand and transform the theory and practice of data and AI ethics.

The network is led by Dr Alison Powell at the London School of Economics and supported by the AHRC (Arts & Humanities Research Council). JUST Al invites new ways of thinking about data and Al ethics through:

- understanding the field with the help of multidisciplinary mapping
- intervening in targeted ways to explore emerging challenge areas
- facilitating networking to support diverse voices and perspectives, and to build capacity.

Potential future programmes

In future, new programmes will be developed by Ada in consultation with our Board. Possible new programmes in 2022 might include:



AI and education

With the Nuffield Foundation, we are exploring the development of a research programme focused on the future of Al in the education system, examining how it will change the nature of teaching, learning and assessment.

Corporate practices for ethical AI

We are interested in engaging with technology workers to understand how ethical principles inform corporate processes, and examining organisational ethics processes to assess their effectiveness.





Data and algorithms in the justice system

We are scoping projects focused on the release of justice system data to external actors, and the development and deployment of algorithmic tools in the administration of justice.

How do we decide to work on an issue?

- Will the problem we've identified impact on people and society?
- How does this project help Ada achieve its strategic goals?
- Is this a project that Ada is uniquely placed to deliver?
- What opportunity makes it the right time to do this project?
- How does the project align with or develop other projects or thinking?
- What is the beneficial change this project will create?

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Beneficial change Influencing stakeholder Ada Building Color Onanging discourse Ada Lovelace Institute - Strategy 2021 - 24

How we think about and measure impact

Ada's impact framework is designed to extend our thinking about the effect we have – beyond metrics – to recognise and understand the beneficial change we create in the world.

We take a relational approach to impact, understanding that our research and activities need to be turned into knowledge that can be applied in the world.

We look for indicators and evidence of influence or change in the world, resulting from Ada's agenda setting, convening, evidence building and research.

We understand that our work will often make a contribution to significant impacts alongside other actors in the ecosystem.

We look for indicators and evidence of moving the needle, attributing impact to our activities realistically in a complex ecosystem. We may actively work in partnership with other actors to perform different roles to produce change.

The narratives we build about our impact are determined by our theory of change.

We build evidence to demonstrate that our activities are leading, through our strategic goals, to the outcomes and impact we've identified. Extending our thinking about the different types of impact we can have through our work helps us think about why and how we design projects, to effect change.

We look for evidence of impact in five areas:

- 1 Policy and law: for example, our work provides evidence that makes a new policy or law possible, or we advise those developing policy or law
- 2 Practice: for example, our work provides evidence of practices in industry that can engender informed approaches by regulatory bodies, or our research contributes to decisions that produce beneficial change in products or services produced by technology companies
- 3 Capacity building: for example, people and organisations - such as regulators - have new knowledge and skills that will enable them to generate impacts, undertake future work or adapt to change, or research leads to the development of new infrastructures or models
- 4 Understanding and awareness: for example, undertaking new research to understand the scale, scope or urgency of a technology's impact, or raising awareness about issues that have had little research, public attention or media coverage
- 5 Attitudes and perceptions: for example, producing new knowledge through evidence building that changes perceptions and narratives, or new appreciations for alternative views through public-engagement methods

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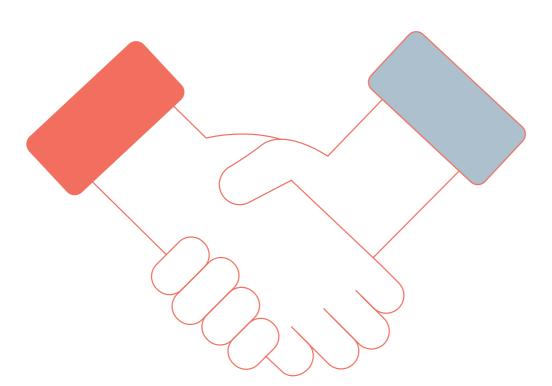
Partnerships and funding

Working in partnership with other organisations is an effective way to amplify our capacity, broaden our expertise and ensure the impact of our work.

We have conducted, or are in the process of delivering successful partnerships with:

- **DataKind UK:** we produced *Examining the Black Box:* Tools for assessing algorithmic systems
- Understanding Patient Data: we organised a citizens' jury on health data partnerships and published Foundations of Fairness
- The Royal Society: we hosted a workshop on data access and sharing in the pandemic and published *Getting data right*,
- The Health Foundation: we have a three-year partnership studying the impact of data-driven systems on health inequalities in the context of the COVID-19 pandemic
- NHS Al Lab: we developed research on best practice in impact assessment to inform their work with Al developers

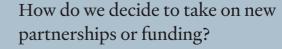
- Open Data Institute, Royal Statistical Society, Institute for Government and the Centre for Public Data:
 we held a joint event series on the National Data Strategy
- The British Academy: we held a joint event series with JUST AI on prototyping ethical futures for AI
- The Alan Turing Institute and the Institute for Data Science and Al, Exeter University: we ran a workshop series and are publishing a whitepaper on research ethics committees.
- Al Now and the Open Government Partnership: we produced a survey of global developments in algorithmic accountability policy..
- The Geospatial Commission: we are partnering to deliver a public dialogue on the use of location data.





Existing and former funders

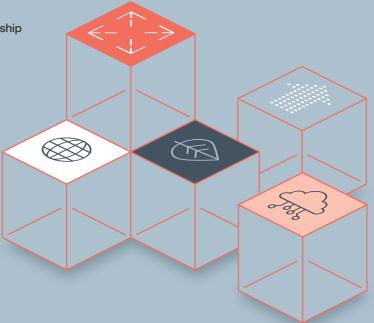
- The Nuffield Foundation, an independent charity
- The Arts and Humanities Research Council
- The Health Foundation, an independent charity
- Luminate, a global philanthropic organisation
- European Al Fund, a philanthropic initiative supported by a range of independent foundations
- University College London
- NHS Al Lab, to support a research partnership on best practice in impact assessment
- **Generation Foundation**, a philanthropic organisation focused on sustainability



The independence of the Ada Lovelace Institute is our most important attribute, and we will guard it robustly. Our affiliation with and support from the Nuffield Foundation is our chief asset in this regard; it enables us to pursue research according to the strategy and agenda that we define. In order to guard against the perception of undue influence, we do not accept private-sector funding. To guard against any perception of outside influence, we do not perform consultancies for, or act as contractors to, the private sector.

When deciding whether we will take on new research or funding partnerships, we consider the following factors:

- our independence: does this partnership undermine our independence or the perception of our independence in any way?
- our mission and strategy: is this partnership in keeping with our mission, and will it help us to achieve our strategic goals?
- capacity and impact: do we have the capacity to deliver this work to the high standard we set ourselves, and is the resource required proportionate to the impact that this partnership will have?



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