# Data Ethicist

Find out what a data ethicist does and the skills you need to do the job.

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This describes the role of a data ethicist and the skills required including:

- an introduction to the role, telling you what you would do in this role and the full list of skills
- a description of the levels in this role and the <u>corresponding skill level</u> (awareness, working, practitioner, expert).

This role is part of the <u>Digital</u>, <u>Data & Technology Profession</u> in the Civil Service.

## Introduction to the role of Data Ethics

Data ethics is a cross-cutting discipline that critically assesses the wider societal impact of technology and data, and produces actionable recommendations for other data professionals. It involves thinking about fairness, accountability, the law, moral dilemmas, and risks involved in the creation of technology and data products and policies.

As a data ethicist, you will:

- Provide research and expertise on data ethics, and act as a champion and change agent.
- Enable and empower others to implement data ethics best practice in their work. This could include providing data ethics training, advising data science teams, demonstrating how to apply ethical principles in practice through examples and case studies, and driving best practices in data ethics.
- Communicate effectively to explain and raise awareness of data ethics issues as well as listen, convene, advise and mediate between various parts of the organisation. You will create a space for people to ask questions, express concerns, and discuss ethical dilemmas.

### Skills required to be a data ethicist

You will need the following skills for this role, although the level of expertise for each will vary, depending on the role level.

- **Communication skills (data)**. You can communicate effectively across organisational, technical and political boundaries, understanding the context. You know how to make complex and technical information and language simple and accessible for non-technical audiences. You can advocate on behalf of a team and communicate what it does, to create trust and authenticity. You know how to respond to challenges.
- Applied knowledge of social sciences. You have the knowledge of or background in social sciences (anthropology, economics, sociology, philosophy, psychology, race theory etc). You are a critical thinker with a social science or humanities background. You can operationalise and implement the wealth of theoretical knowledge from social sciences and use it to inform data projects, products, and policies, and to evaluate and challenge assumptions made in data science projects. You are familiar with domain knowledge of existing schools of thought and exemplar models of data ethics in practice.
- Stakeholder relationship management. You know how to identify, analyse, manage and monitor relationships with and between stakeholders. You can communicate with stakeholders clearly and regularly, clarifying mutual needs and commitments through consultation and consideration of impacts while focusing on user needs.
- Analysis and synthesis (data ethics). You have the ability to draw together, analyse, and critically evaluate information. This includes the ability to quickly read and interpret complex documents from a range of sources and distill to what is relevant. You can turn research data into clear findings that inform decisions. You know how to involve colleagues in analysis and synthesis to increase consensus and challenge assumptions. You are able to analyse project information and data to exercise sound judgement of ethical risk and potential pitfalls and provide recommendations on how to prevent that. You actively follow the latest research and academic developments in data ethics and draw from them in your work. In critically evaluating project plans, you help teams define the outcomes and ethical considerations of their projects, and integrate ethical diagnostics and assessment in their work.
- Bridging the gap between the technical and non-technical (data ethics). You can translate technical concepts relating to software engineering, delivery management and service management so they are understood by all. You can mediate between people and mend relationships,

communicating with stakeholders at all levels. You need to have an understanding of how technology and data products and services are built. You are familiar with the technical jargon and have a sufficient knowledge of data to hold meaningful conversations with data science experts on issues such as minimising bias in data, data gathering, collecting, cleansing, triangulating, reusing etc. You are able to effectively support data scientists and engineers in implementing data ethics.

- Product development (data ethics). Working in data ethics involves creating frameworks, guides, and other resources for practitioners. You are able to develop data ethics tools and translate theoretical principles into practice. You know how to use a range of product management principles and approaches. You can capture and translate user needs into deliverables. You know how to work with a range of specialists in multidisciplinary teams. You are familiar with feedback gathering, evaluation mechanisms, and product promotion. In evaluating the existing data ethics tools, you can identify best practices and map how data ethics is being implemented within an organisation.
- Empathy and Inclusivity. You have an inclusive approach to consensus building and ability to incorporate disparate views of underrepresented groups in evolving products and policy work. You are involved in the wider organisational diversity and inclusion agenda and you actively draw on your multidisciplinary background and lived experience to understand the consequences of data systems on a diverse range of stakeholders. You have a thorough understanding of social issues, types of bias, and discrimination different groups can face, and you are able to use this knowledge to inform your data ethics work.
- Ethics and Privacy. You understand the ethical considerations of potential data science approaches, and the legislation applicable in this area, i.e. GDPR, DPA etc. You are aware of existing data and AI ethics frameworks within the Government and externally.
- **Problem Solving**. You can identify and understand problems, analysing and helping to identify the appropriate solution. You can classify and prioritise problems, document their causes and implement remedies.
- Facilitating decisions and risks. You can make and guide effective decisions, explaining clearly how the decision has been reached. You have the ability to understand technical complexity and risks, run collaborative design activities, influence others and build consensus.

## Data Ethics Lead

The Data Ethics Lead supports the Head of Data Ethics to enable others across the organisation to understand data ethics and implement best practice in their work.

#### Skills needed for this role

- **Communication skills (data).** You can listen to the needs of technical and business stakeholders and interpret them. You know how to manage stakeholder expectations. You are flexible and capable of proactive and reactive communication. You know how to facilitate difficult discussions within the team or with diverse senior stakeholders. (Relevant skill level: practitioner)
- Applied knowledge of Social Sciences. You have a working knowledge of social sciences (anthropology, economics, sociology, philosophy, psychology, race theory etc). You are able to apply various social science theories in practice to inform data projects, products, and policies, and to evaluate and challenge assumptions made in data science projects. You engage with academics and external researchers and are aware of emerging theories and concepts. (Relevant skill level: practitioner)
- **Stakeholder relationship management.** You can influence stakeholders and manage relationships effectively. You know how to build long-term strategic relationships and communicate clearly and regularly with stakeholders. (Relevant skill level: practitioner)
- Analysis and synthesis (data ethics). You have the ability to draw together, analyse, and critically evaluate qualitative and quantitative data and information. You can quickly read and interpret complex documents from a range of sources and distill to what is relevant. You can turn research data into clear findings that inform decisions. You know how to involve colleagues in analysis and synthesis to increase consensus and challenge assumptions. You can advise on choice and application of techniques, and can critique colleagues' findings to assure best practice. In critically evaluating project plans, you help teams define the outcomes and ethical considerations of their projects, and integrate ethical diagnostics and assessment in their work. (Relevant skill level: practitioner)
- Bridging the gap between the technical and non technical (data ethics). You are an expert in translating technical concepts to non-technical audiences so they are understood by all. You have a good understanding of how technology and data products and services are built. You understand the technical jargon and have a sufficient knowledge of data to hold meaningful conversations with data science experts on issues such as minimising bias in data, data gathering, collecting, cleansing, triangulating, reusing etc. You effectively support data scientists and engineers in implementing data ethics and you empower others to do that. (Relevant skill

level: expert)

- **Product ownership (data ethics).**You are able to develop data ethics tools and translate theoretical principles into practice. You know how to use a range of product management principles and approaches. You can be flexible, consider new ways of working and adapt to change. You can capture and translate user needs into deliverables. You are familiar with feedback gathering, evaluation mechanisms, and product promotion. (Relevant skill level: practitioner)
- Empathy and Inclusivity. You are able to incorporate disparate views of underrepresented groups in evolving products and policy work through extensive consultations and outreach strategies. You are involved in the wider organisational diversity and inclusion agenda and you actively draw on your multidisciplinary background and lived experience to understand the consequences of data systems on a diverse range of stakeholders. You have a thorough understanding of social issues, types of bias, and discrimination different groups can face, and you are able to use this knowledge to inform your data ethics work. (Relevant skill level: expert)
- Ethics and Privacy. You understand the ethical considerations of potential data science approaches. You are aware of the legislation applicable in this area, i.e. UK GDPR, DPA etc. You are aware of existing data and AI ethics frameworks within the Government and externally. (Relevant skill level: practitioner)
- **Problem Solving.** You ensure that the right actions are taken to investigate, resolve and anticipate problems. You coordinate the team to investigate problems, implement solutions and take preventative measures. (Relevant skill level: practitioner)
- Facilitating decisions and risk. You can work with higher impact or more complex risks. You know how to build consensus between services or independent stakeholders. You can lead others to make good design decisions. You know how to apply different risk methodologies in proportion to the risk in question. (Relevant skill level: practitioner)

## Head of Data Ethics

The Head of Data Ethics leads on the development and implementation of organisational data ethics policies to empower colleagues and drive lasting change.

#### Skills needed for this role

- **Communication skills (data).** You can mediate between people and mend relationships, communicating with stakeholders at all levels. You know how to manage stakeholders' expectations and facilitate discussions across high risk or complexity or under constrained timescales. You can speak and represent the community to large audiences inside and outside of government. (Relevant skill level: expert)
- Applied knowledge of Social Sciences. You have an expert knowledge of social sciences (anthropology, economics, sociology, philosophy, psychology, race theory etc). You are able to apply various social science theories in practice to provide strategic oversight of data projects, products, and policies, and to evaluate and challenge assumptions made in data science projects. You have an expert knowledge of existing schools of thought and exemplar models of data ethics in practice. You actively collaborate with academics and external researchers and you seek to publish research on applied digital ethics. (Relevant skill level: expert)
- Stakeholder relationship management. You know how to direct the strategic approach for stakeholder relationships, establishing and promoting the meeting of stakeholder objectives. You can influence important senior stakeholders and provide an arbitration function. (Relevant skill level: expert)
- Analysis and synthesis (data ethics). You are an expert in drawing together, analysing, and critically evaluating qualitative and quantitative data and information. You can quickly read and interpret complex documents from a range of sources and distill to what is relevant. You can turn research data into clear findings that inform data ethics decisions for the entire organisation. You know how to build capacity in analysis and synthesis and involve others to increase consensus and challenge assumptions. In critically evaluating project plans, you help teams define the outcomes and ethical considerations of their projects, and integrate ethical diagnostics and assessment in their work. You know how to help an organisation continually assure, improve and innovate their practices to generate clear and valuable findings in data ethics. (Relevant skill level: expert)
- Bridging the gap between the technical and non technical (data ethics). You are an expert in translating technical concepts to non-technical audiences so they are understood by all. You have a good understanding of how technology and data products and services are built. You understand the technical jargon and have a sufficient knowledge of data to hold meaningful conversations with data science experts on issues such as minimising bias in data, data gathering, collecting, cleansing, triangulating, reusing etc. You effectively support data scientists and engineers in

implementing data ethics and you empower others to do that. (Relevant skill level: expert)

- **Product ownership (data ethics).** You can define and create organisationwide data ethics tools and translate theoretical principles into practice. You are an expert in product management principles and approaches. You set new ways of working and adapt to change. You can capture and translate user needs into deliverables. You are an expert in feedback gathering, evaluation mechanisms, and product promotion. (Relevant skill level: expert)
- Empathy and Inclusivity. You are able to incorporate disparate views of underrepresented groups in evolving products and policy work through extensive consultations and outreach strategies. You are involved in the wider organisational diversity and inclusion agenda and you actively draw on your multidisciplinary background and lived experience to understand the consequences of data systems on a diverse range of stakeholders. You have a thorough understanding of social issues, types of bias, and discrimination different groups can face, and you are able to use this knowledge to inform your data ethics work. (Relevant skill level: expert)
- Ethics and Privacy. You are an expert in setting and identifying the ethical considerations of potential data science approaches. You have a good working knowledge of the legislation applicable in this area, i.e. UK GDPR, DPA etc. You have an expert knowledge of existing data and AI ethics frameworks within the Government and externally and are able to advise others seeking ethical guidance. (Relevant skill level: expert)
- **Problem Solving.** You ensure that the right actions are taken to investigate, resolve and anticipate problems. You coordinate the team to investigate problems, implement solutions and take preventative measures. (Relevant skill level: expert)
- Facilitating decisions and risk. You can work with higher impact or more complex risks. You know how to build consensus between services or independent stakeholders. You can lead others to make good design decisions. You know how to apply different risk methodologies in proportion to the risk in question. (Relevant skill level: practitioner)