Data & Intelligence Network Ethics Workbook

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Introduction

The Data and Intelligence Network has made a commitment to develop trusted systems for using data in an ethical and responsible way. This ethics workbook has been designed to complement existing information governance systems and legislation whilst also capturing deeper socioethical questions.

Managing the Covid-19 pandemic effectively means understanding the impact of the virus at national, local and individual level. The pandemic is more than just a health crisis, it is also a social and economic crisis that is causing harm on an unprecedented scale. This requires difficult decisions to be made to reconcile these various interrelated harms in order to minimise overall harm. It is also important to recognise that while the virus can affect everyone, the harms caused do not impact everyone equally. This means that using and linking data to understand all of the impacts is vital if we are to protect human rights overall and those most at risk.

This ethics workbook is designed to provide a means to address the moral dilemmas that are presented in reconciling the privacy, rights and freedoms of people in Scotland with the rapid, proactive and responsible use of information to manage the pandemic. It allows you to assess not only if the project is being carried out in the right way, but for the right reasons. The completion of the ethics workbook is likely to be an iterative approach, and we anticipate that you will revisit the workbook at key stages across the challenge/project/programme lifecycle.

The questions in this workbook do not intend to duplicate any existing information governance processes. We do encourage you to reference any additional documentation or internal processes (e.g. Data Protection Impact Assessments) where appropriate to support your answers.

We also recognise that the scale and scope of projects undertaken by the Data and Intelligence Network vary widely: some are limited in scope and can expect to be completed in hours or days, while others will have a profound and potentially long term impact on end-users. The workbook is designed to help the challenge owner to identify the scale of work as well as the risks and benefits early in the process so that ethics, transparency and public involvement can properly be taken into account and be proportionate.

For more information, please reference the Data and Intelligence Network's Ethics Framework.

The Workbook

The ethics workbook should be completed by the 'challenge owner' and their team at the outset of a challenge being proposed.

The workbook has been split into four key sections that align to the natural lifecycle of a challenge:

1 THE CHALLENGE → **2 THE DATA & DIGITAL TECHNOLOGY** → **3 THE PUBLIC** → **4 THE OUTPUTS**
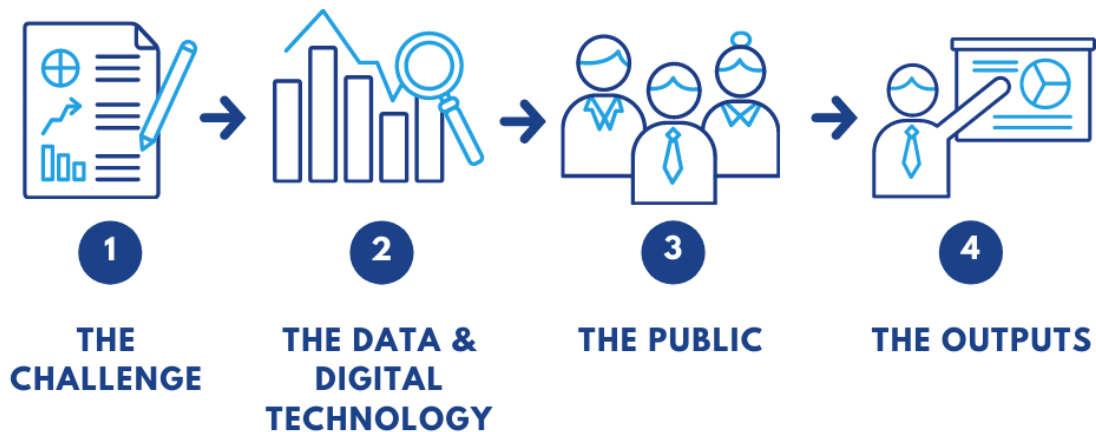
Within each of the sections are a set of tailored questions that signpost key ethical considerations at that stage of the challenge. You should try and work through the questions in order where possible.

Below each question you will see a prompt. These prompt questions have been designed with the intention to support your answers. You can choose to answer these prompt questions directly, or use them as a tool to structure and inspire your own answers. Each of the prompts links to one or more of the Rainbow Principles. You should make reference to the Rainbow Values and Principles in your answers where appropriate.

It is important that you try to include as much detail as possible in your answers. We would encourage the use of the prompts and questions to help explain both the public benefit and potential harms of the work candidly. You should also approach the assessment as if the person reviewing your answers has no prior knowledge of your challenge/project.

Think of the ethics workbook as a map with key questions to help you think about your challenge design and its impact. It should be a dynamic document that is used to review and evaluate the work throughout the challenge. This will help your team and others to understand the impact of your challenge from an ethical perspective.

Values and Principles

The Rainbow Values and Principles have been created as a reminder of the core beliefs and standards of the Data and Intelligence Network. All challenges should align to these values and strive to work within the principles. These act as clear guidance about the priorities and ways of working within the Data and Intelligence Network.

RAINBOW VALUES

COMPETENCY
TRANSPARENCY
FAIRNESS
PURPOSE
TRUST
VOICE   AGENCY
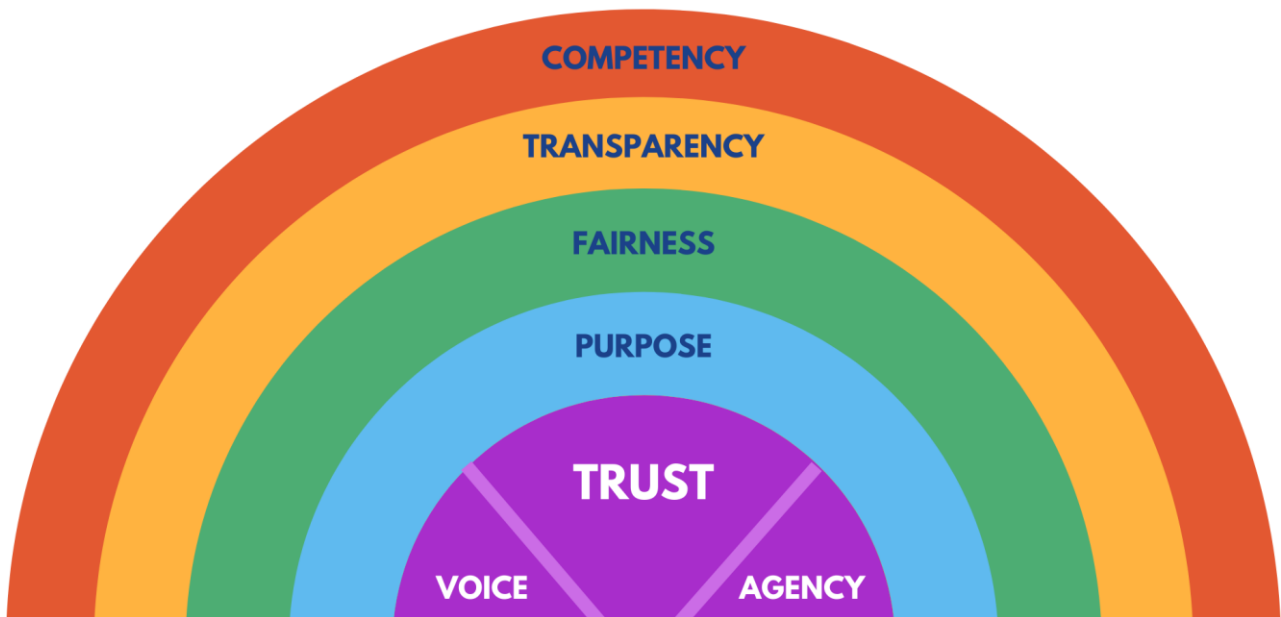
One of the most important values is that of public trust, and the assessment is tailored to guide you through key questions about public awareness, public scrutiny and public engagement throughout the different stages of a challenge. This will help you to ensure that your challenge is being designed and delivered in a way that will earn and build trust in your work and the activity of the Data and Intelligence Network more broadly

Competency: Adherence to the rule of law
Transparency: A systematic approach to communication, arming citizens with meaningful information
Fairness: Consistent treatment of citizens, empowering citizens' voices
Purpose: Responding to public health needs whilst balancing the rights of the citizen
Trust: These all lead to the building of trust in the activity of the network. Trust is earned through the consistent demonstration of adherence to these values
Voice & Agency: The public are both listened to and heard

RAINBOW PRINCIPLES

R **ESPONSIBLE**

Recognise the need to behave in a **trustworthy** way in the use of data across systems and processes

A **CCOUNTABLE**

Be **accountable** and **transparent** to independent scrutiny and oversight, use **reliable practices** and work within your skillset

I **NSIGHTFUL**

Identify the **limitations** of the data and recognise unintended bias, identify and apply mitigation

N **ECESSARY**

Identify **reasonable, proportionate** and **time-bound** requirements to meet that need

B **ENEFICIAL**

Start with a clear articulation of need, **public benefit** and risks during the public health emergency

O **BSERVANT**

Implement all **relevant legislation and codes of practice**, including any relevant emergency legislation for the Pandemic

W **IDELY PARTICIPATORY**

Embed **public participation** through the development, implementation and monitoring of the work of the Network

1.   The Challenge

1.1 State the purpose and scope of your challenge.

Necessary: What is the particular need for your challenge? How have you shown that your challenge is proportionate to the intended aims?

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1.2 State the intended impact of your challenge on the pandemic.

Beneficial: How have you justified the need for your challenge in the context of the public health emergency?

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[                                                                          ]
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1.3 What is the public benefit of your challenge…
- To the individual?
- At an aggregated level?
- At an institutional level?
- At a societal level?

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[                                                                          ]
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Beneficial: How have you considered public benefit across a variety of groups, communities and categories?

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[                                                                          ]
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1.4 What are the potential risks of your challenge...
- To the individual?
- At an aggregated level?
- At an institutional level?
- At a societal level?

Insightful: What steps have you taken to identify limitations of the challenge with regard to both the data and the intended impacts?

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[                                                                          ]
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1.5 How do you plan to mitigate these risks?

Responsible: How will you ensure you use the data responsibly?

Observant: What relevant legislation and codes of practice will you reference to support your answers?

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1.6 What other methods have you considered to deliver this challenge? Why have you selected this method?

Insightful: How have you shown that data is the only way you could achieve the intended outcomes?

Necessary: What makes this method proportionate to the challenge aims?

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1.7 Have you designed the approach with the public, the service user, policy team or a subject matter expert; including providing sufficient time and information for this to be effective?

Widely Participatory: How have you engaged with the public on your challenge so far, and how has this impacted the design of your challenge?

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1.8 Which other stakeholders or institutions might benefit (directly or indirectly) from the use of this data and/or methodology?

Responsible: How have you identified potential positive and negative applications of your challenge? What are the implications?

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2.   The Data and Digital Technology

2.1 What data sources are required for this challenge?

Necessary: How have you identified and chosen these sources?

2.2. How will these data sources be used, and for what purpose?

Accountable: How have you shown the need for each data source in relation to the challenge aim?

2.3 Have you completed the necessary Information Governance /Data Management /Data Protection Impact Assessment protocols for a COVID19 D&I Network challenge?

Observant: Reference the relevant legislation and codes of practice appropriate to your challenge. Clearly evidence any additional or emergency legislation as a result of the Pandemic.

2.4 What steps have you taken to ensure that the minimum data required, or synthetic data, is used in your challenge?

Responsible: What data variables have you chosen to include and why? How have you balanced public benefit and privacy against challenge accuracy?

2.5 If bringing together data sets, what are the risks of this data linkage exercise?
- At an individual level?
- At an aggregated level?
- At an institutional level?
- At a societal level?

Insightful: How have you mitigated any risks associated with data linkage?

2.6 What steps have you taken to ensure the data and its limitations are fully understood, including metadata?

Insightful: How have you shown that you have considered limitations such as bias, representation, data gaps, data variables, accuracy, excessiveness etc.? How have you communicated any limitations to the challenge team?

2.7 How are you identifying and how do you intend to deal with errors and biases in the data?

Accountable: What strategies have you used? How have you ensured that these will be reviewed and assessed appropriately?

2.8 How will you ensure protection for the privacy of individuals?

Responsible: What strategies have you used to support the protection of individual's privacy?

Accountable: How have you shown that your challenge has integrated considerations of privacy issues from the very beginning of its development?

2.9 How will you communicate any assumptions throughout the challenge?
Accountable: How have you justified any assumptions made?

Beneficial: How have you ensured that assumptions made are still for public benefit?

Widely Participatory: How have you ensured that this information is widely accessible?

2.10 How will you communicate the accuracy, credibility and reliability of any insights and outputs?

Insightful: How have you documented the accuracy of your challenge?

Widely Participatory: What steps have you taken to ensure this information is widely accessible?

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2.11 How will you ensure replicability? Could another analyst repeat your procedure based on your documentation?

Accountable: How have you documented your work, and who can access this information?

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2.12 Where can you publish your methodology and outputs?

Observant: What guidance, legislation and requirements have you considered when decided where to publish your work?

Widely Participatory: How, if appropriate, have you planned to make this work widely accessible?

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2.13 How much of the work can you and your team speak about openly while protecting privacy?

Beneficial: What steps have you taken to ensure the whole team is aware of their responsibilities?

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2.14 How do you intend to explain the methodology and output of the challenge to a variety of audiences?

Accountable: What communications channels have you considered to ensure that your methodology and results are easily accessible and transparent?

Widely Participatory: What format/language/style would allow your methods to be widely accessible? If not appropriate to publish your findings publicly, explain why.

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3.1 Have you clearly explained why you need to use this data in ways that members of the public could understand?

Beneficial: How have you ensured that your project aims have been communicated in an accessible way?

3.2 Do the public identify the same benefits and risks? Do the public balance them in the same way?

Beneficial: How have you engaged with the public to gauge whether they are in agreement with your benefit/risk analysis?

Widely Participatory: How have you ensured that you have engaged with a representative group of individuals?

3.3 Does this use of data interfere with or risk the rights or freedoms of individuals?

    3.3.1 If the answer is yes, is there a less intrusive way of achieving the objective?

    3.3.2 Have you set out a mitigation strategy to reduce the risks?

Responsible: How have you embedded responsible practices into your challenge design?

Beneficial: How have you justified the potential risk to the rights or freedoms of individuals?

Observant: How have you taken into account relevant legislation and guidance that protects the rights and freedoms of individuals?

3.4 How will you reconcile the rights of the individual with the interests of the community or society?

3.4.1 Have you engaged the public to ensure the risk/ benefit analysis is viewed by them in the same way?

3.4.2 By using data that the public has freely volunteered, would your challenge and/or methodologies jeopardise people providing this again in the future?

3.4.3 If yes, what is your mitigation strategy?

Necessary: How have you balanced the rights of the individual with the interests of society? How have you ensured that you will maintain public trust whilst acting in the public interest?

Widely Participatory: What steps have you taken to ensure that you have accounted for multiple perspectives across a variety of individuals and groups?

3.5 How has your proposal taken account of the views of the public and the groups adversely affected?

Widely Participatory: How have you identified and engaged with representative and appropriate groups in the design of your challenge?

3.6 Have you thought through how you will engage the public in using the outcomes in the next phase of the work?

Widely Participatory:: Who have you engaged with to support and facilitate ongoing public participation for your challenge?

3.7 Have you completed an engagement plan to identify existing opportunities for engagement and plans for public participation in the design, delivery, and scrutiny of your work?

3.7.1 Have you got senior sign-off for this plan, including the resources needed and the implications for the timeframe for decision-making and implementation?

Widely Participatory: Who have you engaged with to ensure that this plan is practical and achievable? What steps have you taken to ensure that this plan will be followed?

3.8 How will you ensure that the whole team working on the challenge are aware of the network's ethics values and principles?

Observant: How have you embedded the values and principles into the culture of your team? What guidance is in place to support this?

3.9 How have you communicated an appropriate reporting framework for any ethical issues that arise during delivery and after implementation of your challenge?

Accountable: What steps have you taken to ensure your team is confident and comfortable in reporting any issues? How have you communicated the appropriate reporting structures with your team?

4. The Outputs

4.1 How confident are you that the outputs are valid and reliable, and that any limitations and assumptions have been accounted for?

Insightful: How have you documented limitations and assumptions throughout the project?

4.2 How will you ensure the quality of the challenge outputs, and how does this stack up against the challenge objectives?

Accountable: What methods have you used to determine the quality of the challenge outputs? How have you related these back to the original challenge aims and proven that they are fit for purpose?

4.3 If necessary, how can you (or external scrutiny) check that the combined data or algorithm is achieving the right output decision when new data is added?

Accountable: Have you identified an appropriate individual/group to provide external validation of your outputs? How have you documented the accuracy of your outputs?

4.4. What technology, if any, will be required for your challenge outputs to be used successfully? What are the implications of using this technology? (E.g. mobile apps)

Responsible: How have you justified your decision to choose this particular technology? What assessment criteria did you use?

4.5 Who has access to insights or outputs of the challenge, and how are they being given the appropriate support and training to use these outputs responsibly?

Responsible: What steps have you taken to ensure that support and training is both available and accessible to the appropriate parties?

4.6 To which audiences will you communicate your findings/share challenge outputs, and why?

Accountable: How have you decided where, and to whom, the outputs will be made available?

4.7 What structures are in place to ensure that your challenge outputs are used only for their original purpose and in the context of the pandemic? Are these boundaries clearly stated?

Necessary: What steps have you taken to track and safeguard the onward use of the challenge outputs? How have you defined and communicated the appropriate and proportionate use of these outputs?

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