

Guiding ethical questions

This document lists (examples of) ethical questions in the context of working with data. The goal of this document is to raise awareness of the ethics of working with data.

Note that:

- The questions are grouped under phases of projects. Since projects are structured in many different ways, the idea is that you pick only the questions that suit your project.
- This list is not exhaustive and will be changed and expanded over time.
- The goal of this list is not to answer the questions, but to inspire discussion.
- The follow-up question to each question below is: 'and is this ethical?'

1 Conceptualisation: forming a concept or idea of something

- What is the goal of a project?
- What are the positive and negative effects on stakeholders?
- Which effects prevail over other effects and why?

To answer these questions, we first need to know:

- Who are the stakeholders? Distinguish between internal stakeholders (marketeers, analysts, management) and external stakeholders (customers, indirect end-users).
- What are the potential benefits for <stakeholders>? What ethical values are underlined by the initiative (convenience, safety, relevance, efficiency, reliability)?
- What are the potential disadvantages for <stakeholders>? What are ethical values that are negatively affected by the initiative (safety, equality, autonomy, privacy)?

The values that come from this small (or big) enquiry form the basis for all steps to come. For instance: if (sample) data is biased/inadequate, what are the effects on the values of different stakeholders? Examples of such effects are:

- If a customer's profile is based on biased historical data, a customer could end up being investigated for fraud (Belastingdienst) for the wrong reasons.
- If a customer profiled wrongly, a wrong offer/discount might be offered, and the customer could end up feeling discriminated (any e-comm organisation).
- If a customer's data (with initial consent) is used for other purposes without them knowing, privacy is not honoured, and the reliability of an organisation is at risk.

2 Operationalisation: defining the measurement of a concept or idea

- What is selection of a sample based on/what is the sampling strategy?
- Is a selected sample sufficient to answer the question(s)?
- Are there any biases in the sampling strategy?
- Are there any limitations of the measurement tools used (reliability)?
- Can you measure what you need to measure (validity)?

3 Data collection

For primary data collection:

- Are we using personal data only for the purpose and time period that was communicated with data subjects? (= informed consent, mandatory under GDPR)
- Is data collection limited to only (personal) data that is necessary for answering a question/the purpose of an organisation (related to customer journey)?
- Are there any biases in the collected data?
- Has a retention period for the project data been documented?

4 Data analysis

- Are there any biases in the analysis methods? If yes: are they a problem?
- Have any alternative analysis methods been considered? If yes: why didn't we use them?
- How are outliers dealt with (i.e. are outliers errors or are they 'undesired')?
- Are we encouraged to do an independent analysis? Or are we under pressure to deliver certain (e.g. positive) results?

5 Data modelling

- Are there any (significant) biases in the models used? If yes: are they a problem?
- Are there any (significant) biases in the results? If yes: are they a problem?
- Are project results usable by the end user?
- Do results have significant social implications? (E.g. if certain processes are automated, what are the effects on an organisation or end users?)
- How are outliers dealt with?
- Is there someone accountable and equipped to answer to end users'/colleagues' complaints and questions?

6 Data visualisation

- Are sampling/collection/analysis/model/other biases appropriately visualised?
- Are the visualisations a fair representation of the research outcomes?
- Are the visualisations presented in an understandable manner for the target audience?
- Are there no 'hidden' results that the audience will not understand?
- Do the visualisations adequately reflect actual differences (e.g. colour codes)?
- Is the N reported along with visualisations?
- Are (sub-)samples reported along with visualisations (e.g. Dutch women aged 11-20)?

- Are data sources reported along with visualisations?

7 Data reporting

- Have sampling/collection/analysis/model/visualisation or other biases been reported along with the results?
- Has sufficient attention been paid to explaining the limitations of a project to different stakeholders?
- Have the necessary steps been taken to avoid misinterpretation of the project and its results?
- Does the report use appropriate scales?
- Are results appropriately interpreted within their context?
- Have comparisons been made with an appropriate baseline?
- Is the N reported?
- Does the report fairly conclude correlation or causality?

8 Data governance

For all data types (personal and non-personal):

Organisation

- Do stakeholders act according to ethical considerations?
- Does an organisation's structure allow/promote ethical behaviour (e.g. to deal with complaints/issues)?
- Are there any conflicting interests within an organisation that affect data governance?
- Do stakeholders have the same understanding of all data points? (Having unclear definitions creates misinterpretation and thus possible negative effects on stakeholder values.)
- Are KPIs (indicators) clear and unambiguous?

Access and storage

- Do only those who need to work with data directly have access to it? Others can have access to the insights, not the data itself.
- Do only those who can interpret results correctly have access to data (correct meaning according to documentation)?
- Can non-personal data be traced back to individuals (including by really smart people who try hard)? If yes: have the necessary steps to prevent harm to data subjects been taken?
- Is data collection well-documented and up to date?
- Is there a data storage policy and is it well-documented?
- If data is stored on third-party servers, have compliance policies of the third data partner been shared?
- If data is stored on third-party servers: can these parties access stored data?
- Can the storage time (retention period) of data be reduced to less than the maximally allowed duration according to the GDPR (12 months)?
- Is there a process for data deletion (including what type of data is deleted, how is it deleted and when and by who is it deleted)?

For personal data specifically:

- Is personal data clearly labelled (collected and inferred)?
- Is there a process in place to delete data of end users on request? (= Right to be Forgotten, GDPR)
- Is there a process in place for end users to access their own data? Or to alter/change the data an organisation has stored?
- Are personal data resources/systems only combined when legally allowed? (GDPR)