Historically, the risks for human Research Subjects unwittingly involved in (mostly clinical) research have sometimes been devastating, the worst of which ultimately led to drafting of the 1947 Nuremberg Code – the first formal ethical guidelines for medical research. But the risks associated with less controversial research methods or goals can also be devastating. What happens if there’s an accident which your research methods could have contributed to – or directly caused? Have you checked the relevant Health and Safety requirements, and are there any insurance and/or liability issues to take into account? Or if one of your participants has an adverse reaction to your experimental conditions, or finds themselves in a difficult situation in the field, do you have the necessary backup plans in place?

And then there’s the increasingly sensitive issue of personal data. How you handle the data your participants give to you – whether it’s basic personal data collected for administrative purposes or more sensitive personal data that contribute to your research – is also critical. Not just because it’s a legal requirement to do so, but because the consequences of a security breach for your participants can be devastating. Such consequences can include identity theft or fraud, while the consequences of re-identification, might include damage to reputation, loss of livelihood or investigation by the authorities.

Failure to protect personal data against loss or misuse can also have serious legal, reputational and financial consequences for researchers and research-performing organisations. Recent examples of unethical research practices have involved the unauthorised collection and/or (mis)use of personal data, resulting in enforcement action by regulators. In the Netherlands, a Research Subject may complain to the Dutch Supervisory Authority concerning a data breach of personal data, with the possibility of a penalty being imposed. A civil action may also be pursued for damages incurred.

To help with identifying possible risks, we’ve created a Risk-Planning tool, to help in incorporating risk to participants into research design, and we’ve identified seven main Risk Factors, such as where your research will take place, who your participants are and what you are asking from them. You can click on any of these Risk Factors in the list below to find out more.

A: Partners and collaboration  
B: Location  
C: Participants  
D: Recruiting participants  
E: Subject matter  
F: Research methods  
G: Data processing and privacy  

You can also find out more about the roles of Informed Consent and Data Management in planning to minimise, communicate and manage risk.

H: More on Informed Consent and Data Management
### A: Partners and collaboration

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<th>RISK ASSESSMENT</th>
<th>MITIGATION PLAN</th>
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<tr>
<td>• Different kinds of partnerships can expose research participants (Research Subjects) to different kinds of risks. Consider, for example, an internship provider who wants to survey their employees; a research collaborator with whom you want to share data outside of the EU; a third party supplier who has agreed their own terms and conditions with their platform users; an external research partner who is funding or part-funding the research etc.</td>
<td>• Be clear that specific responsibilities — particularly regarding ethical approval, legal compliance, liability &amp; insurance, or quality control — are clearly agreed. Be clear also how these agreements will be properly actioned and monitored.</td>
</tr>
<tr>
<td>• Be clear about who you are partnering with. What is their role or interest in the research? And are there any relevant issues such as their relationship with your Research Subjects and/or what raw data they might access?</td>
<td>• Be clear on who is responsible for key steps such deleting any special or sensitive data before it is to be shared.</td>
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<td></td>
<td>• Make sure you have clear agreements on issues such as: data ownership, (international) data transfer, potential use (or misuse) of data for commercial or other (e.g. military) purposes</td>
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<td></td>
<td>• Addressing the points above, ensure you have the appropriate contractual arrangements in place, including project consortium, joint controller and/or internship agreements</td>
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<td></td>
<td>• When using datasets from collaborators or third parties, demonstrate how you’ll check the data’s legal and ethical pedigree. For example, this could be through setting up explicit Data Processing or Data Transfer Agreements, or by referring to existing ethical approvals and/or published Informed Consent processes.</td>
</tr>
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</table>

**ADDITIONAL EXPERTISE/CONSULTANTS:**
- Contract Managers
- Privacy Law

**EXAMPLES:**
- Third-party datasets
  - [Can unethically produced data be used ethically?](https://www.ncbi.nlm.nih.gov/pmc/articles/PMC2606221/)
## Risk Assessment

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<tr>
<td>Research in different countries will bring different legislative requirements – including, for example, the need for research permits in particular areas or involving particular participants. Similarly the age at which one can legally give informed consent will differ from place to place.</td>
<td>Demonstrate that you have consulted, notified and gained approval where required, from the relevant bodies in the country where you are to conduct your research.</td>
</tr>
<tr>
<td>Some research contexts and geographical areas can pose specific risks to the safety of both participants and researchers, for example:</td>
<td>Consider very carefully what you are asking from whom, and, in cases where potential risks to participants may be high, make sure that you have expert advice on all aspects surrounding data collection, storage, transport and access.</td>
</tr>
<tr>
<td>o Countries or regions where economic, political, environmental or health conditions pose particular risks to research “subjects” and/or research staff</td>
<td>Ensure you have the right (local) expertise on your project team and/or advisory group to consider the relevant risks and address the local legal and ethical needs, which might include:</td>
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<td>o research in troubled neighbourhoods in any country</td>
<td>o applying for formal ethics approval locally</td>
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<tr>
<td>Consider the safety of participants and staff, especially if you plan to involve marginalized, vulnerable or hard-to-reach groups, and/or address sensitive topics, such as political views, sexual orientation, religion, trade union membership</td>
<td>o applying for local authorisation</td>
</tr>
<tr>
<td>TU Delft policy is to observe advice from the Dutch Ministry for Foreign Affairs on the latest travel advice. Research requiring travelling to a red or an orange area will require approval from the Dean of your faculty.</td>
<td>If your research is to take place in resource-poor location/s, make sure that it is responsive to the needs of the country where it is carried out (e.g. the study has value for the welfare of the intended participants, their community, and/or their country). This issue is of critical relevance for emerging and developing countries and could include:</td>
</tr>
<tr>
<td>Consider the ethical acceptability of your research with respect to the customs, standards and practices at your study site</td>
<td>o showing how the results of your research can be applied in low and/or lower middle-income countries</td>
</tr>
<tr>
<td>Bear in mind that obtaining informed consent does not in itself guarantee ethical research. In some research settings, the very act of obtaining informed consent, while aiming to safeguard participants’ rights and well-being, may in fact place them at risk of harm in their social context.</td>
<td>o showing how your research activities will build local capacities and/or other benefits of the research will be shared.</td>
</tr>
</tbody>
</table>

## Additional Expertise/Consultants:

- Health, Safety and Environment
- Privacy Law
- Appropriate subject/local experts

## Sources:

- Ethics in Social Science and Humanities (European Commission DGR&I 2021)
- Research Ethics in Ethnography/Anthropology (European Commission DGR&I 2021)
- Refugees, asylum seekers and migrants (European Commission DGR&I 2021)
- Global Code of Conduct for Research in Resource Poor Settings (globalcodeofconduct.org)
- Identifying serious and complex ethics issues in EU-funded research (European Commission DGR&I 2021)

## Examples:

- Global Witness records the highest number of land and environmental activists murdered in one year – with the link to accelerating climate change of increasing concern
C: Participants

<table>
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<tr>
<th>RISK ASSESSMENT</th>
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| • Certain kinds of participants may be exposed to particular kinds of risks. For example:  
  o because they may be vulnerable – such as children or adults who cannot (legally) give IC;  
  o because they may be vulnerable under specific circumstances or in a specific context (such as refugees of victims of violence or abuse);  
  o because there is a higher likelihood of reidentification; or  
  o because they are in a subordinate relationship with (one or more of) the researchers (such as students, children or employees). | • Ensure that you provide your participants (and/or the gatekeepers who legally or customarily control access to them) with sufficient information to make an informed decision on whether or not to participate.  
• Note that consent cannot be given by power of attorney, but that parents/legal guardians give consent for PIRD use of a child based on their legal authority.  
• Your Opening Statement/Participant Information and Informed Consent form should include clear information on your research goals, what you expect from participants, what risks could arise both during and after the research, and what steps you will take to limit those risks.  
• Your Data Management Plan can be used to record data processing decisions and as such serve to demonstrate GDPR compliance.  
• It’s important to ensure that you have the right expertise in your group, and that you fulfil any specific legal or ethical requirements towards your participants given your specific physical research location and/or disciplinary field. For example, take care to provide details of both what informed consent will be obtained and how this will be done. Be clear also on whether there are specific types of certification required to work with (gatekeepers to) your target participant group. |
| The key thing to consider here is what specific risks might arise for your participants as a consequence of participating in your research. For example, is there a risk of stigmatization, loss of reputation or livelihood, increased risk of investigation by authorities or potential danger of physical or mental harm.  
Consider also the possible longer-term impact of participation, not just at the moment of giving consent or the duration of the study. For example, a participant’s political observations may pose a different level of risk under changed circumstances (such as a new governing regime).  
Make clear why any participants who may be vulnerable to risk are important to your research. | |

ADDITIONAL EXPERTISE/CONSULTANTS:  
• Privacy Law  
• Medical Devices  
• Appropriate subject/local experts

SOURCES:  
• Ethics in Social Science and Humanities (European Commission DGR&I 2021)  
• Research Ethics in Ethnography/Athropology (European Commission DGR&I 2021)  
• Refugees, asylum seekers and migrants (European Commission DGR&I 2021)  
• Identifying serious and complex ethics issues in EU-funded research (European Commission DGR&I 2021)

EXAMPLES:  
• Anonymisation and Pseudoanonymisation UCL (UK)  
• Seeking consent for research with indigenous communities: a systematic review (Fitzpatrick et al 2016)  
• On our terms: obtaining Aboriginal community consent for social research: A literature review and case study (Tony Dreise 2018)

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D: Recruiting participants

### RISK ASSESSMENT

- Different recruitment methods also bring the possibility of different kinds of risk, and may need careful consideration and explanation. Specific points can include:
  - Compensating participants
  - Recontacting lists of previous participants or using other (e.g.: conference participant) lists
  - Participants who are TU Delft Students or employees, or employees in a partner company (including internship providers)
- Consider that the (manner of) selecting participants may lead to collecting unintended personal data and/or possible reidentification
- Make sure that you clarify how participants in potentially subordinate relationships (e.g.: students and employees) are being recruited – and that they are not required or somehow induced to participate
- Also be clear on your criteria for inclusion/exclusion based on, for example, the outcomes of an initial questionnaire.

### MITIGATION PLAN

- It is essential to include in your Informed Consent both that participation is voluntary and that participants can withdraw at any point without adverse consequence.
- In the case that participants are TU Delft students (especially if they are in a subordinate position to the researcher), state clearly in the Informed Consent that (lack of) participation does not influence grading. Ideally, ensure that the researchers are not in a position of grading/evaluating the students and/or do not know who has or has not participated in the study.
- In general be sure to reflect on any potential risk of stigmatisation resulting from how you select and communicate with, or about, your participants, and be clear in your application on how you will avoid this

### ADDITIONAL EXPERTISE/CONSULTANTS:

- Privacy Law
- Medical Devices
- Appropriate subject/local experts

### SOURCES:

- Ethics in Social Science and Humanities (European Commission DGR&I 2021)
- Research Ethics in Ethnography/Anthropology (European Commission DGR&I 2021)
- Refugees, asylum seekers and migrants (European Commission DGR&I 2021)
- Identifying serious and complex ethics issues in EU-funded research (European Commission DGR&I 2021)
## RISK ASSESSMENT

- Failure to protect personal data (PII and/or PIRD) against loss or misuse can have devastating consequences for the data subjects, such as loss of employment, exposure to physical or online abuse, refusal of insurance cover, or loss of reputation.
- It may also have serious legal, reputational and financial consequences for the researcher (i.e.: the data controller and/or processor).
- Equally, failure to address health and safety hazards, and subjecting participants to such hazards, may result in civic liability.
- Research related to medical questions/health may require special attention. See also the website of the CCMO before contacting the HREC.
- Incidental/Unexpected findings - may include indications of, for example, criminal activity, human trafficking, abuse, domestic violence or bullying that **may require** the researcher to take some form of action.

## MITIGATION PLAN

- Ensure that your research is GDPR compliant by consulting your Faculty Data Steward and/or TU Delft Privacy Team.
- Ensure that your research is HSE compliant by consulting your Faculty HSE advisor.
- Consider any unintended/unexpected/incidental findings you might discover by chance and explain how you intend to deal with such findings.
- Where your own teaching experience is also the subject matter of your research, make sure that you deal adequately with the fact that your participants may potentially be considered as in a subordinate relationship, and that processing of Personal Data for that research may still require Informed Consent. It’s also important to provide a meaningful possibility for your students **not** to participate.
- If appropriate, consider conducting a Human Rights Impact Assessment and/or involving human rights experts in the research (see Ethics in Social Science and Humanities – misuse of research).

## ADDITIONAL EXPERTISE/CONSULTANTS:

- Privacy Law
- Medical Devices
- Appropriate subject/local experts
- Legal Services
- Health, Safety and Environment

## SOURCES:

- CCMO website
- Ethics and Data Protection [European Commission 2021]
- Ethics in Social Science and Humanities (European Commission 2021)
- Identifying serious and complex ethics issues in EU-funded research (European Commission DGR&I 2021)
- Guidance note on potential misuse of research results
- Guidance note on research focusing exclusively on civil applications

For medical-related research see:

- Uw onderzoek: WMO-plichtig of niet?
- Wet medisch-wetenschappelijk onderzoek met mensen
- Clinical investigations with medical devices
- EU Medical Device Regulation (EU no 2017/745, MDR)
F: Research methods

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<tr>
<th>RISK ASSESSMENT</th>
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<tr>
<td>• Failure to flag health and safety risks, and/or to explain how these risks will be mitigated, are two of the most common things missing from HREC applications. Where you seek Informed Consent from your participants it is important that all such risks and steps are clear to your participants in your Informed Consent materials.</td>
<td>• Research must comply with ethical principles and relevant European, national and international legislation, including the EU’s Charter of Fundamental Rights and the European Convention on Human Rights and its Supplementary Protocols, specifically as it relates to:</td>
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<tr>
<td>• In general, all scientists must consider whether their research methods tally with their objectives and whether the expected benefits outweigh the potential risks.</td>
<td>o Medical and/or clinical trials</td>
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<td>• Research methods that need particular attention from the perspective of research ethics include:</td>
<td>o Medical Devices Research/In vitro Devices Research</td>
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<td>o covert research</td>
<td>o Psychological Research</td>
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<tr>
<td>o use of deception in research</td>
<td>o Research where there is the potential for injury, infection or stress to participants</td>
</tr>
<tr>
<td>o Internet research and social media data in research</td>
<td>o Research with potential legal, financial, reputational or other consequences for participants</td>
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<tr>
<td>• Where informed consent is sought, it must be made clear to prospective research participants that they are free to decide whether or not to take part in the research, and whether any data collected from and about them is included in analysis.</td>
<td>• Informed consent will almost always be required for participation in the project – regardless of whether PII (Personally Identifiable Information) and/or PIRD (Personally Identifiable Research Data) are to be collected.</td>
</tr>
<tr>
<td>• Where informed consent is not an option – e.g.: research is either covert, involves deception or uses social media data – steps to mitigate risks to participants remain important.</td>
<td>• Where your own teaching is part of the methodology of your research, make sure that you deal adequately with the fact that your students could be either your participants (and potentially in a subordinate relationship) and/or your research collaborators.</td>
</tr>
<tr>
<td>• Surveys, interviews and expert consultation may expose participants to different kinds of risks depending on who is participating, what kinds of questions they are answering and how the information they give you will be used.</td>
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# Data Processing and Privacy

### Risk Assessment

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<th>NOTE: For practical purposes the HREC distinguishes between two distinct types of personal data:</th>
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<tr>
<td>- Personally Identifiable Information (PII) (used for administrative purposes); and</td>
</tr>
<tr>
<td>- Personally Identifiable Research Data (PIRD) (research data collected from Research Subjects)</td>
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- Where you are collecting, storing, analyzing, accessing, publishing or re-using PIRD it is imperative to identify and substantiate the legal ground for your data processing. In the context of scientific research this is often, but not always, through informed consent.

- A project which involves any data about identifiable persons, even if they are not directly participating in the research, most likely involves “processing” of “personal data” and must comply with EU and national law. Only data that have been fully and irreversibly anonymised may be exempt from these requirements. However, where multiple anonymous datasets (including public datasets) are to be combined, the possibilities for unintended re-identification should be carefully considered.

- Bear in mind, also, that datasets which are legally compliant, may not necessarily be ethically acceptable

- Failure to protect personal data against loss or misuse can result in enforcement action by regulators. Unauthorised collection and/or (mis)use of personal data, examples of unethical research practices have involved the organisations (data controller and/or processor). Recent consequences for researchers and research performing organisations (including professional reputation), increasing the risk of adverse reputational effects (for the researcher/s and/or the Research Performing Organisation).

### Mitigation Plan

<table>
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<th>Researcher responsibilities</th>
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<tr>
<td>- If the legal ground for data processing is informed / explicit consent you must document the consent, ensure that a participant can revoke consent and demonstrate that revocation can be executed in practice (including data deletion)</td>
</tr>
<tr>
<td>- The GDPR emphasizes the need of data minimization: processing as little personal data as possible. Aim to collected as little PII/PIRD as possible. For example, don’t use video recordings if audio recordings suffice. Either way, justify why gathering your data is necessary.</td>
</tr>
<tr>
<td>- Note that in all cases where there are special categories of PIRD, such as health information or political views, this requires the data subjects’ explicit consent</td>
</tr>
<tr>
<td>- Make use of, and reference to, professional standards, best practices and (funding) organisations’ requirements</td>
</tr>
<tr>
<td>- Use tools and platforms that are considered secure from an IT perspective. Consult your Data Steward regarding the accepted tooling list or when considering untested or insecure tools and platforms.</td>
</tr>
<tr>
<td>- Ask explicitly for consent if personal data will be published as open data.</td>
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<tr>
<td>- Each personal data process needs to be entered in the processing register. The person responsible for the processing is also responsible for keeping the register entry up to date.</td>
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### Working with partners

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<tr>
<td>- Describe and document the entire data processing activity and clearly allocate responsibilities for GDPR compliance</td>
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<tr>
<td>- Include a provision on personal data sharing between partners in the collaboration or consortium agreement (transfer of data to research partners requires a contractual basis)</td>
</tr>
<tr>
<td>- Sign a processor agreement with the appropriate entities for any tool, platform, SaaS-solution used when processing personal data.</td>
</tr>
<tr>
<td>- Ensure that any agreements in data sharing agreements, data transfer agreements and processor agreements are in line with the project agreement signed with the funding organization</td>
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### Anonymisation, pseudo-anonymisation, minimization and identification

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<tr>
<td>- Anonymisation is the process of removing personal identifiers (both direct and indirect) that may lead to an individual being identified.</td>
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<tr>
<td>- Pseudonymisation is defined within the GDPR as “the processing of personal data in such a way that the data can no longer be attributed to a specific data subject without the use of additional information, as long as such additional information is kept separately and subject to technical and organizational measures to ensure non-attribution to an identified or identifiable individual”</td>
</tr>
<tr>
<td>- Importantly, while pseudonymisation can provide individual data subjects with a degree of protection and anonymity, pseudonymised data still fall within the scope of personal data because it is possible to re-identify the data subject.</td>
</tr>
</tbody>
</table>
ADDITIONAL EXPERTISE/CONSULTANTS:
- Privacy Law
- Data Management

SOURCES:
General (EU) Guidance – Data Protection
- Ethics and Data Protection (European Commission DGR&I 2021)
- Ethics Guidelines for Trustworthy AI (EC - Independent High-Level Expert Group on Artificial Intelligence 2019)
- Ethics by design/operational use for Artificial Intelligence
- Identifying serious and complex ethics issues in EU-funded research (European Commission DGR&I 2021)

Informed Consent
- Seeking consent for research with indigenous communities: a systematic review (Fitzpatrick et al 2016)
- On our terms: obtaining Aboriginal community consent for social research: A literature review and case study (Tony Dreise 2018)

Anonymisation and Pseudo-anonymisation
- UCL (UK) Data Protection Guidance

EXAMPLES:
Legal but not ethical

Risks associated with identification can be life-changing
- Global Witness records the highest number of land and environmental activists murdered in one year – with the link to accelerating climate change of increasing concern
- Spat at, abused, attacked: healthcare staff face rising violence during Covid
H: More on Informed Consent and Data Management

Your research involves human participants as Research Subjects if you are recruiting them or actively involving or influencing, manipulating or directing them in any way in your research activities. This means you must seek informed consent and agree/implement appropriate safeguards regardless of whether you are collecting any PIRD.

Where you are also collecting PIRD, and using Informed Consent as the legal basis for your research, you need to also make sure that your IC materials are clear on any related risks and the mitigating measures you will take – including through responsible data management.

| Informed Consent Process | The informed consent process seeks to gain your participants’ (Research Subjects’) consent to participate in your research. In order to allow potential participants to make proper informed choices, your informed consent materials need to include:
| | • Any physical, emotional or privacy-related risks your research could potentially expose them to. These should include risks arising both directly during the research and subsequently due either to the repercussions of your research findings and/or in the event of participants’ re-identification as the consequence of any kind of data breach.
| | • The mitigating measures you will take to minimize these risks
| | • Any realistic potential benefits of the research (and to whom)
| | • Assurances that their participation is voluntary, that they can stop at any point, and that their data can be deleted if they request this

| Informed Consent Materials | Depending on your Informed Consent process your materials could comprise Participant Information + Informed Consent Form OR Opening Statement:
| | • Participant Information – describes the goals of the research and what is expected of the participant
| | • Informed Consent Form – itemizes exactly what participants are agreeing to in terms of risks and their mitigation. These points need to include your commitments to data management, including publication and re-use
| | • Opening Statement – summarizes the relevant points found in Participation and Informed Consent, and generally allows participants to consent by clicking through to an (anonymous) online survey. It is unlikely, in such cases, that itemized Informed Consent points can be used, since participants must generally either agree or not agree to the full terms.

| Data Management Plan | Your Data Management Plan allows you to comply with GDPR by documenting how you will manage your participants’ personal data. It’s important that your DMP is consistent with your HREC checklist and Informed Consent materials. Equally, it is vital that your plan is executed in practice.

RESOURCES

SOURCES:
- Ethics in Social Science and Humanities (European Commission DGR&I 2021)
- Ethics and Data Protection (European Commission DGR&I 2021)
- Ethics Guidelines for Trustworthy AI (EC - Independent High-Level Expert Group on Artificial Intelligence 2019)
- Ethics by design/operational use for Artificial Intelligence

EXAMPLES:
- Seeking consent for research with indigenous communities: a systematic review (Fitzpatrick et al 2016)
- On our terms: obtaining Aboriginal community consent for social research: A literature review and case study (Tony Dreise 2018)
- Informed Consent in Social Sciences Research: Ethical Challenges (Ferreira and Serpa 2018)
- A Modern History of Informed Consent and the Role of Key Information (Bazzano et al 2021)
- Informed consent in anthropological research: we are not exempt (Fluehr-Lobban 1994)

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