

Best practice research and observation guide - Ethnographic tools

Preface

There are two purposes of this guide: (1) how to conduct fieldwork, in accordance with the original application (see Grant Agreement) AND (2) preliminary ideas for how to develop the analysis and write case write-ups.

One of the things that we have taken much more into account than originally envisioned is the concern for non-disclosure of roboticists' ongoing work. We have adjusted our methodology to address this by conducting the interviews in different steps. Steps one and two will only concern publicly available information and therefore will not fall under a non-disclosure agreement with roboticists. Step three will give what we know now is very interesting data, which may be covered by a non-disclosure agreement and which therefore may not be used in publications. Prior to any interview, the interviewee must also sign a consent and confidentiality form so that all are knowledgeable of the agreement covering the interview and its later uses. See Section II, Ethical Guidelines and Appendix A for more details.

Contents

Preface.....	1
I. Introduction.....	4
Terminology.....	4
Aims and purpose of fieldwork.....	4
Purpose of the guide.....	5
II. Ethical Guidelines for Good Ethnographic Research Practice.....	6
General ethical guidelines.....	6
Informed consent to research.....	7
Recording.....	7
Privacy.....	7
Data retention and sharing.....	8
Non-disclosure agreement and confidentiality.....	9
Interview consent form.....	9
Getting approval of interview transcript.....	9
III. Data Handling Procedures.....	10
Handling raw data.....	10
Storing and sharing data.....	10
Anonymization.....	10
Local co-ordination of transcription procedures.....	10
REELER transcription guide.....	11
III. Case Study Methodology & Fieldwork Procedures.....	12
Fieldwork procedures.....	12
What is a case study?.....	13
IV. Case Write-Up Guide.....	15
V. Interview Guide.....	17
General information.....	17
Conducting interviews.....	18
Structure of interview guides.....	19
VIII. References.....	20

Appendix A – Ethical guidelines	22
Example Non-disclosure agreement.....	23
Interview consent form	27
Interview consent form	29
Cover letter regarding approval of transcript.....	31
Cover letter regarding approval of transcript.....	32
Responsible Ethical Learning with Robotics – REELER Fact Sheet.....	33
Appendix B – Data handling	34
REELER transcription guide.....	Error! Bookmark not defined.
Appendix C – Interview guides	37
Interview guide for Roboticists.....	38
Interview guide for Affected Stakeholders.....	40

I. Introduction

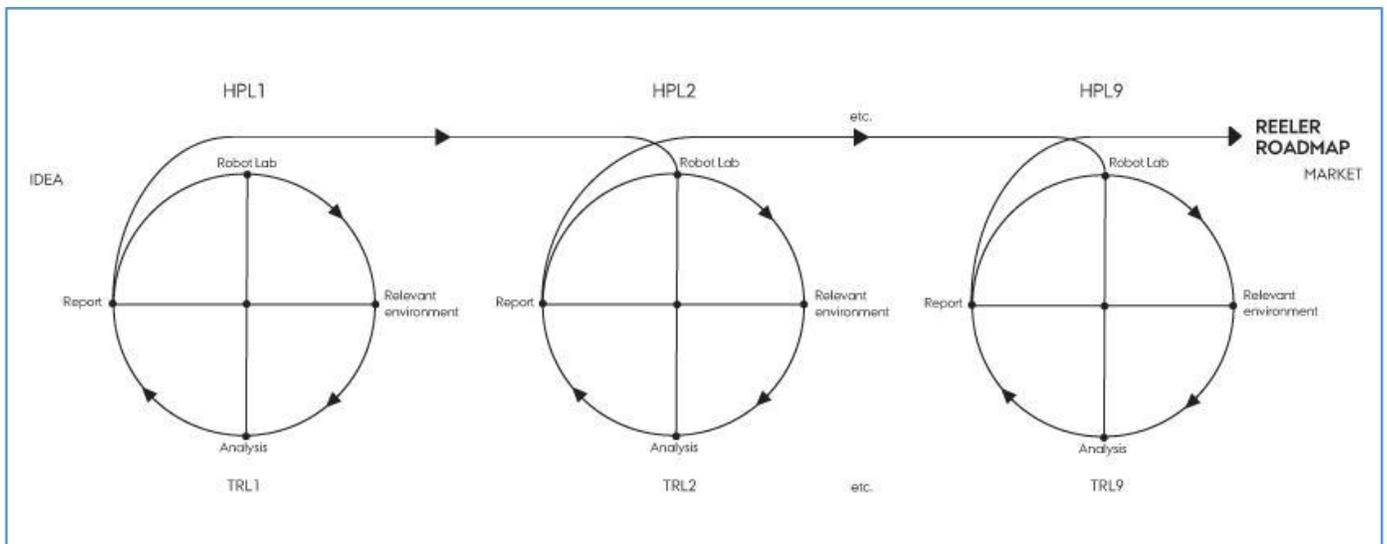
Terminology

In REELER we have decided to use the terms *roboticists* and *affected stakeholders* to refer to our two types of informants.

Roboticists we define as the people involved in *creating* robots whether they are designers, engineers, medical doctors or other types of expertise.

Affected stakeholders we define as both users *expected to engage* with the robots in close proximity and a wider spectrum of people, who may potentially experience the effects of the robots even if they never touch them. These may include people whose expertise will change due to the implementation of robots, people who may have to learn new skills, people who may react positively or negatively to robots at their workplace, people potentially made redundant, people saved by robots or whose health may be restored or who in other ways can be said to be affected by the envisioned robotic design.

Aims and purpose of fieldwork



The case write-ups in WP3 and WP4 will inform the field reports for WP5 and WP6; however, this guide does *not* explain these field reports or the analysis planned in WP5 and WP6. Please look for further details on the work package structure and content in the Grant Agreement:

Work Package 2: pilot field study (REGAIN) >> case write-up (presented in Deliverable 2.2)

Work Packages 3 and 4: selection of specific cases >> fieldwork >> case write-ups >> field reports

Work Packages 5 and 6: field reports >> analytical points of interest >> joint analysis seminars

Each selected case (i.e. each field study), used as a basis for the case write-ups, is following the robot as a point of departure; however, the main aim is to elicit some general ethical questions through studies of particular robots.

It is from these selected and preliminarily analyzed raw data in the case write-ups, which are then combined into field reports, that we will develop Human Proximity Levels (HPL) in relation to the Technological Readiness Levels (TRL) (meaning that we shall seek HPL at each TRL).

A field report will correspond to the 6-month research periods and will encompass the case write-ups for the fieldwork done in each of these periods.

Purpose of the guide

The Best Practices Research and Observation Guide – Ethnographic Tools is the project's shared best practice fieldwork guide based on the Kick-off and Common Ground Seminars. The two aims of this guide are: (1) how to conduct fieldwork, in accordance with the Description of Action (DOA) in the signed Grant Agreement, and (2) how to develop the analysis and write case write-ups. The *Ethnographic Tools* will also include reasons for departing from original methodology ideas in the Description of Action (DOA) in the Grant Agreement.

II. Ethical Guidelines for Good Ethnographic Research Practice

General ethical guidelines

A focal point of REELER's research is to observe and interview people who are, directly or indirectly, affected by robots – either because they make them or because robots are or will become an issue that affects their life. We have chosen ethnographic fieldwork as our main research/data collection method since knowledge about the use of, or experience with, robots in real-life settings is necessary to achieve one of our main objectives: to better understand HRI (human-robot-interaction).

“Ethical and legal dilemmas occur at all stages of [ethnographic] research: in the selection of topic, area or population, choice of sponsor and source of funding, in negotiating access, making 'research bargains' and during the research itself while conducting fieldwork, including the interpretation and analysis of results, the publication of findings and the disposal of data. Anthropologists have a responsibility to anticipate problems and insofar as is possible to resolve them without harming either the research participants or the scholarly community. ... As members of a discipline committed to the pursuit of knowledge and the public disclosure of findings, they should strive to maintain integrity in the conduct of anthropological research. This ethics code applies to anthropological work whether studying 'up' and/or 'down', with persons and/or animals...”

(ASA Ethical Guidelines 2011, www.theasa.org)

As ethnographers, we must consider the effects of our involvement with, and consequences of our work for the individuals, groups and institutions we encounter as part of the fieldwork; e.g. the informants, their colleagues, gatekeepers, collaborating researchers, sponsors, funders, employers, interest groups and own as well as host governments. REELER field workers should therefore bear in mind two main ethical principles of participant observation:

1. Informants should be made aware of the presence and purpose of the researcher whenever reasonably practicable. Researchers should inform participants of their research in the most appropriate way depending on the context of the research.
2. Field notes (and other forms of personal data) are predominantly private barring legal exceptions. This is the most important way in which confidentiality and the anonymity of subjects is ensured. Anthropologists have a duty to protect all original records of their research from unauthorised access. They also have a duty to ensure that nothing they publish or otherwise make public, through textual or audio-visual media, would permit identification of individuals that would put their welfare or security at risk.

(ASA Ethical Guidelines 2011, www.theasa.org)

Informed consent to research

Before involving anyone in our ethnographic studies, we must always obtain informed consent. This is done by informing the participants about: a. the purpose of our research, expected duration and procedures; b. their right to decline to participate; c. reasonably foreseeable factors that may be expected to influence their willingness to participate such as potential risks, discomfort or adverse effects; d. any prospective research benefits; e. limits of confidentiality; f. incentives for participation; and g. whom to contact for questions about the research and research participants' rights. (see APA Manual Publication, pp. 234, for more details).

When establishing the first contact to new informants, REELER researchers must present the REELER factsheet which tells about point a) listed above. If an informant is to be interviewed, you must make sure he/she is provided with, and signs, the REELER Interview consent form (see Appendix A). It also describes the aims, methods and expected impact of our research as well as any limits of confidentiality. Here, we distinguish between two types of informants:

- a) Roboticists, may present confidential information and therefore might request a non-disclosure agreement as part of the informed consent (see more about NDA and confidentiality below).
- b) Affected stakeholders and environment; this group is less likely to have confidential information and the REELER Interview consent form (Appendix A) may therefore be sufficient.

Recording

Before recording the voices or images of individuals, REELER fieldworkers obtain permission from all such persons or their legal representatives. Photography (both stills and film) is a very important tool of anthropological inquiry. Filming should always be overt. Moreover, in the case of large public events it is likely that not everyone photographed/ filmed will have the chance to give verbal consent. In such cases the researchers should do all that is possible in his/her powers to not compromise people's identities or security in public presentations of the material.

Privacy

Privacy is a core principle of the European Union. Communication and information technologies have reshaped many crucial principles and issues of privacy for citizens of Europe. We propose to follow the guidelines of the European Union (EU) and the Council of Europe (CoE) for the need to protect private data in digital formats.

With the entry into force of the Treaty of Lisbon in December 2009, the Charter of Fundamental Rights of the EU became legally binding, and with this the right to the protection of personal data was elevated to the status of a separate fundamental right. A better understanding of Council of Europe Convention 108 and EU instruments, which paved the way for data protection in Europe, as well as of the CJEU and ECtHR case law, is crucial for the protection of this fundamental right (Handbook on European data protection law pg. 3).

In our activities during the project we will follow the ‘Council of Europe Convention 108:

“Convention 108 applies to all data processing carried out by both the private and public sector, such as data processing by the judiciary and law enforcement authorities. It protects personal data, and seeks, at the same time, to regulate the transborder flow of personal data. As regards the collection and processing of personal data, the principles laid down in the convention concern, in particular, fair and lawful collection and automatic processing of data, stored for specified legitimate purposes and not for use for ends incompatible with these purposes nor kept for longer than is necessary. They also concern the quality of the data, in particular that they must be adequate, relevant and not excessive (proportionality) as well as accurate”.

Data retention and sharing

Six main principles must be kept in mind when collecting and handling personal, sensitive and/or confidential data:

- (a) Finality: the collected data will be collected only for the specified, explicit and legitimate purposes mentioned in the REELER Grant Agreement and it will not be further processed in a way incompatible with these purposes.
- (b) Transparency: All the affected stakeholders involved in the activities conducted in the context of REELER must be fully informed about the nature and permitted use (i.e. the two levels of data protection described under Non-Disclosure Agreement) of the collected data. Transparency will also be assured by granting the informants the right to access and approve the accuracy of his/her personal data.
- (c) Legitimacy: Regarding the protection of personal data, the REELER project will follow the instructions of the Data Protection Directive (95/46/EC) of the European Parliament and of the Council of 24 October 1995 on the protection of individuals with regard to the processing of personal data and on the free movement of such data. This directive specifies a number of confidentiality and security safeguards for this and other interactive on-line services. [DATA PROTECTION DIRECTIVE 95/46/EC OF THE EUROPEAN PARLIAMENT AND OF THE COUNCIL](#)
- (d) Proportionality: the personal data collected will be adequate, relevant and not excessive in relation to the purposes of which they are collected and processed.
- (e) Accuracy and retention of data: The raw data collected will be accurate and stored safely a minimum of five years after publication of the research.

Security: The concrete data handling instructions (see Section III, Data handling procedures) must be followed by all project members in order to avoid unauthorized disclosure or access to the data. “Other information related to the research (e.g., instructions, treatment manuals, software, details of procedures) should be kept for the same period [i.e. 4 years after the project ends]. Before sharing data, delete any personally identifiable information or code that would make it possible to re-establish a link to an individual participant's identity. In addition to protecting the confidentiality

of research participants, special proprietary or other concerns of the investigator or sponsor of the research sometimes must be addressed as well". (APA Manual Publication, pp.12).

Non-disclosure agreement and confidentiality

As part of the pilot study, we have become aware that in many cases it will be necessary to make a non-disclosure agreement (NDA) with the robot project/owner/company when starting fieldwork. An NDA is a confidentiality agreement which is a legal contract between at least two parties that outlines procedures related to confidential material, knowledge, or information that the parties wish to share with one another for certain purposes, but wish to restrict access to by third parties. Because it is a legal contract, NDAs are signed at institutional level. An example of a non-disclosure agreement is provided for reference only (see Appendix A). Each NDA signed in the course of REELER fieldwork will be unique to the parties involved in its negotiation.

Interview consent form

Before making an interview you must inform the interviewee about their rights and obligations in connection with the interview/their contribution to REELER research. Make sure they understand what they consent to and if necessary, you may enclose a copy of the consent form (see Appendix A) translated into the mother tongue of the interviewee. If they would like to see sample interview questions before doing an interview, you may send them the following four questions:

1. What is your educational background?
2. Do you foresee any general ethical issues in the use of robots?
3. Could you describe all the components and functions in this robot?
4. Did you involve users [affected stakeholders] in the design process?

Getting approval of interview transcript

All informants must be offered the chance to approve the transcript of their interview and indicate whether the transcript contains factual errors and/or whether certain parts of the interview must be kept confidential and thus not presented to third parties or go into analyses – even in unidentifiable form. If the interview contains such information, the interviewee must highlight it in red.

When you get the transcript you replace all proper names with XX and send that version to the informant (see Anonymization in Section III, Data handling procedures). Please use the REELER cover letter (see Appendix A) when you contact the interviewee for approval of transcript.

III. Data Handling Procedures

Handling raw data

Data generated in REELER will not be analyzed and discussed in an anonymized form *within* the project. For that reason it is very important we handle all data with upmost attention to data security and do not breach any confidentiality agreements.

When data is to be used or presented to third party (e.g. REPs, Mini-Publics or any form of publication and in some cases maybe also for interviews) all confidential data material must be anonymized (see Anonymization below).

Storing and sharing data

SharePoint is our secure platform for storing and sharing public and confidential material. Raw or un-anonymized material must not be distributed via email, Dropbox, WeTransfer, or the like, as these services do not meet the requirements of data security.

P1 has set up a folder for each fieldworker on SharePoint (subfolders to the Raw data-folder) in which you can upload and store raw data, such as recordings, photos, notes etc. Only the fieldworker, the local partner and Stine will have access to this folder – unless the local team (i.e. field worker and local partner) have other wishes.

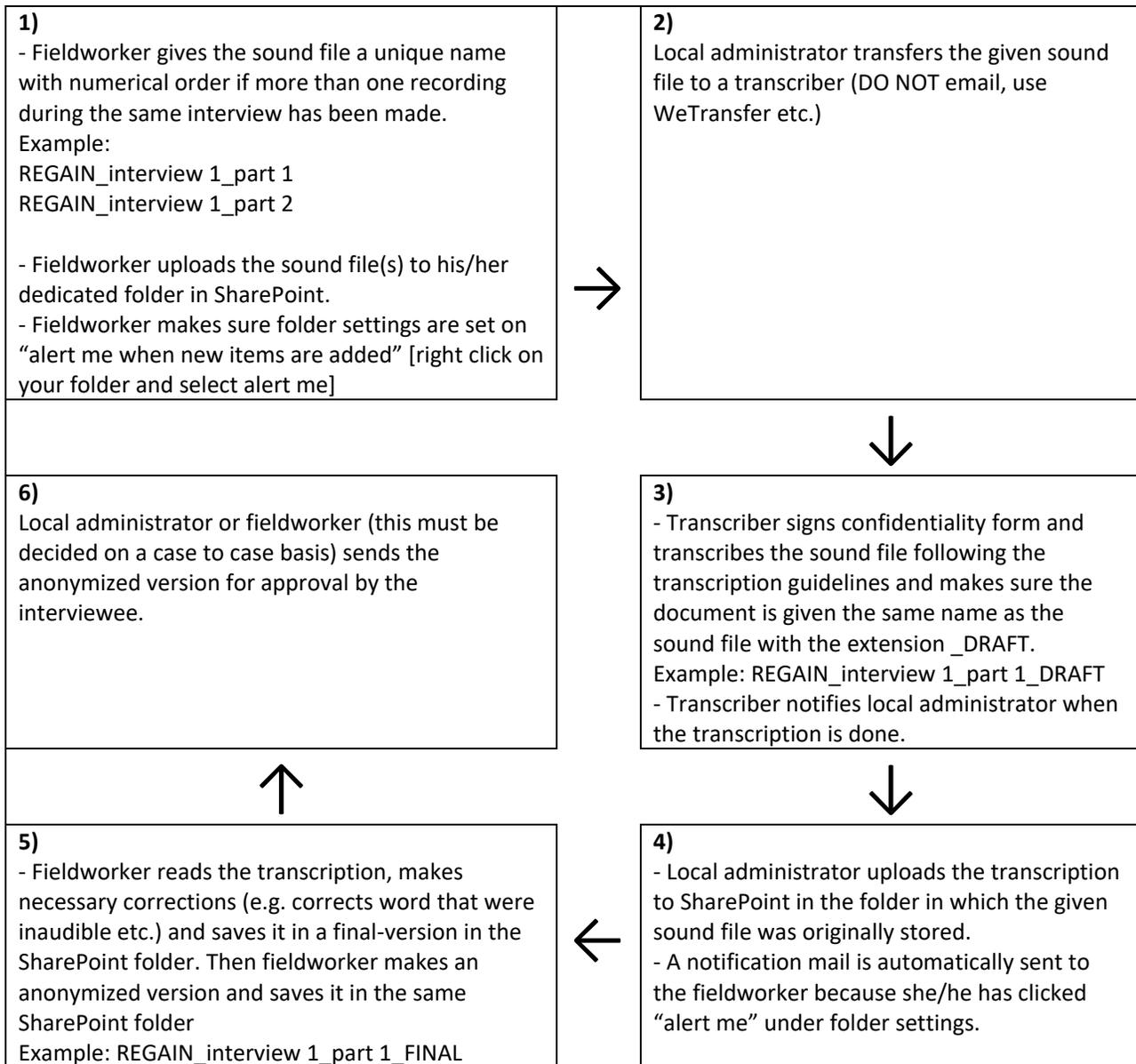
Anonymization

Instead of developing a comprehensive system of anonymity codes at the onset of our data analysis, we suggest the anonymization of our interview transcripts follow a two-step procedure.

- 1) Once the interview has been transcribed and approved by the fieldworker, the fieldworker makes a copy for the interviewee in which all proper names are replaced with XX. The interviewee gets this version for approval (and indicates whether certain parts must be kept confidential – even in anonymous form (must highlight the sections with red). For internal analysis, we may use un-anonymized transcripts.
- 2) When we get to the stage of selecting data and/or quotes for our publication, Stine will develop a uniform system of anonymity codes that can apply to all the relevant data. The purpose of centralizing this task is to ensure a consistent use of anonymity codes by all project members in our publications (to ensure that e.g. REGAIN is given the same anonymity code no matter which REELER member refers to this institution).

Local co-ordination of transcription procedures

Each partner is free to set up his or her own local system. At P1 Aarhus University, we follow this circular system:



REELER transcription guide

All transcriptions should be made according to the REELER transcription guide (see Appendix B). The use of this guide will ensure that transcriptions are consistent, accurate, and easier to analyze, anonymize, and share.

III. Case Study Methodology & Fieldwork Procedures

Fieldwork procedures

In this section, we will explain how the REELER methodology rests on a case study methodology, although the case study methodology is still primarily descriptive.

Case selection criteria:

We aim for emphasis on variation – to be able to explore similarities across diversity

1. *Nationality*; selection will be based on country-mappings. They have to be distributed across Europe + cover robot-heavy and robot-light countries.
2. *Human Proximity*; we want to explore different dynamics and aspects of human proximity – including but not confined to spatial proximity of humans to robots. This will be a new contribution to the human-robot interaction (HRI)
3. *Type of robot*; we aim for robots serving different functions – industrial robots, social robots, service robots etc.
4. *Sector*; we aim for robots within different sectors – health, agriculture, service, industry, teaching, construction, etc. (though NOT military).
5. *Market-driven and funding-driven* robotics; we aim for robot developments with involvement of different agents; triple helix - university/state/industry.

The case selection process should take into account, or attempt to develop, new concepts related to: HPL and TRL.

Methodology:

The REELER project utilizes an ethnographic case study methodology that incorporates cases on the basis of variation within the field of robotics. Case study methodology can involve both qualitative and quantitative data collection methods. In REELER, each case is drawn with a particular robot as its center and engages those around the robot, including roboticists and other affected stakeholders. In this way, each case can be seen as multi-sited, mapping the network of people affecting and affected by the robot and exploring these threads. The main aim is not to address the particular concerns surrounding each robot, but to elicit, from these concerns, some general issues regarding collaboration and ethics. From the findings, REELER would develop some guidelines for future research and projects with the hope to benefit roboticists and society at large.

Typical fieldwork procedure:

- Identify and select a case together with the REELER team.
- Explore the case according to this Best Practice Research and Observation Guide – e.g. begin to write on the parts in the first section of the case write-up (see section V).

- Begin your fieldwork with a visit to the robot’s different development sites, where you engage in participant observation and make a few preliminary interviews establishing initial knowledge of the robot in the roboticists practice.
- Identify affected stakeholders and interview them based on the case robot material.
- Go back and interview more roboticists and if possible use affected stakeholder material in interviewing the roboticists – and vice versa.

Data collection:

Your fieldwork should involve a multi-method approach to data collection, including:

- Participant observation
- Semi-structured interviews
- Publicly available visual and written media (newspaper articles, blog posts, websites, YouTube videos, etc.)
- Not publicly available (and possibly confidential) visual and written media (photos from the field sites, internal documents shared with you, etc.)

What is a case study?

“A case study may be understood as the intensive study of a single case [or a small set of cases] where the purpose of that study is – at least in part – to shed light on a larger class of cases (a population),” (Gerring, 2006, 20).

In this fieldwork stage of REELER, we will closely study particular robots in development, and the humans within their realm of influence, in order to understand robot development processes and to identify the considerations, if any, for the robots’ wider effects on users and affected stakeholders (REELER Part B, 8).

How have case studies been referred to within Anthropology?

Within anthropology, ‘case study’ and ‘case studies’ have been used as an historical investigation (Schiffer, 2002), as sites of experimentation (Lindland & Kendall-Taylor, 2012), as narratives to explain a theoretical framework (Manago & Greenfield, 2011), as support for an argument (Spier, 1929), and as a single narrative synonymous with ethnography (Pineda, 2001).

Within the social sciences, case studies often refer to comparative experiences from which generalizations can be drawn (Gerring 2006). REELER’s fieldwork approach relies on the case study application of the broader social sciences, while using the ethnographic inquiry methods of anthropology. (Flyvbjerg 2006).

What is a case?

A ‘case’ is the predefined/bound unit of investigation (Gerring 2006). If studying political science, the case might be a nation-state. If studying individual behavior, a case might be an individual.

In REELER's context, the case would be a particular robot in development. In REELER, the aim is for variation, so cases will be selected in a manner consistent with Flyvbjerg's description of "information-oriented selection" (2006, 230). Cases will be selected, in part, for maximum variation and for strategic importance to the general problem: "To maximize the utility of information from small samples and single cases. Cases are selected on the basis of expectations about their information content," (Flyvbjerg 2006, 230).

With this in mind, we have mapped robots all over Europe, across various industries, and with various applications, and with varying levels of human proximity. Ideally, the cases selected will be representative of the wide variation identified in the field.

Where is the case site, in REELER?

REELER's methodology might be described as a multi-sited case study:

"Indeed, multi-sited ethnography has been most creative, critical, and interesting where it has been involved with the study of distributed knowledge systems (and mostly within the growing field of science and technology studies, but not only that; see the 2004 volume *Global Assemblages* for a sense of the diverse structural, systemic interests –political, economic, scientific, etc— brought together in multi-sited imaginaries)," (Marcus 2005, 5).

The case itself is centered in the robot and the primary field site is the place of development, other relevant field sites are traced out from the robot to connected humans - roboticists, users, affected stakeholders - wherever they are located. In this sense, the case is multi-sited.

IV. Case Write-Up Guide

Case write-ups (for a single case or field study) are the outcome of fieldwork done according to the Best Practice Research and Observation Guide. Case write-ups will be combined to develop field reports for REELER's joint analysis seminars.

The case write-ups will contain three sections, the description, the analyses, and the appendices.

1) Description

- a. **Description of the robot:** Include visual media, words describing the state that you find it in, technical descriptions, and descriptions of components, etc.
- b. **The case robot's history of development:** Describe the robot's *process of becoming*, including previous generations, its conception, TRL, etc.
- c. **Network & division of labor:** Create a spatial mapping of the humans in connection to the robot, include historical and present collaborations.
- d. **Review:** Explain where the robot belongs in the field of robotics, taxonomy, industry, context, etc.
- e. **Data:** Include data about both the affected stakeholders and the roboticists (full name, name of affiliation, and contact information); justify your choices: whom did you interview and why?
 - i. Raw data [i.e. full interview transcripts in English + sound files, material – public and confidential, relevant field notes in English] about affected stakeholders
 - ii. Raw data [i.e. full interview transcripts in English + sound files, all relevant material – public and confidential, relevant field notes in English] about roboticists

2) Analytical Findings (describing phenomena and research questions)

Cluster relevant excerpts from your raw data under the analytical categories (listed below). Note that these headings are likely to change as the research process begins to reel. Remember to consult the other case write-ups in SharePoint to see whether new analytical categories have been added.

- a. Broad analytical findings and findings specific to the case robot (not necessarily ethical issues) in relation to:
 - i. **Affected Stakeholders**
 - ii. **Roboticists**
 - iii. **Ourselves, as Researchers**
- b. Ethical issues (that could be used in cross-case analyses)
 - i. **Expectations and assumptions:** What are the future visions of both the roboticists and the affected stakeholders? [Part 1, interview guides]. Have you identified a clash between what the roboticists expect of their robot and the assumptions of the affected stakeholders and assumptions about how it will affect their work life.

- ii. **The essentially human:** What do affected stakeholders/roboticists view what a human is differently, as “essentially human”, that robots cannot or will not replace? [Part 1, interview guide]
 - iii. **Inclusion / exclusion:** Whom do the robots include/exclude? Whom might the robot benefit? Who might not benefit? [Parts 2 & 3, interview guide]
 - iv. **Imagery & practice:** How do the images and ideas presented to the public compare to the robot in development and in practice? [Parts 2 & 3, interview guide]
 - v. **Normativity**
 - vi. **Gender**
 - vii. **Political economy**
 - viii. **Proximity**
 - ix. **Robot sabotage**
 - x. **Culture of robotics community**
 - xi. **Work-Labour**
- 3) Appendices of raw data. These appendices can be presented as an electronic appendix in SharePoint.
- a. Visual media: images from the [non-disclosure*] site visits and from public sources (internet, brochures)
 - b. Written media: blog posts, research articles, news articles, website, etc.
 - c. Interviews: Selected excerpts from the interviews [non-disclosure* & interview consent form]
 - d. Field notes: Summary + selected excerpts from the participant observation field notes [non-disclosure*]

V. Interview Guide

General information

The purpose of the REELER interviews is to get data on questions relating to ethics in robot design and potential for collaborative learning between what we call affected stakeholders and roboticists. *Roboticists* we define as the people involved in *creating* robots whether they are designers, engineers, medical doctors or other types of expertise. *Affected stakeholders* we define as both users *expected to engage* with the robots in close proximity and a wider spectrum of affected stakeholders, who may potentially experience the effects of the robots even if they never touch them. These may include people whose expertise will change due to the implementation of robots, people who may have to learn new skills, people who may react positively or negatively to robots at their workplace, people potentially made redundant, people saved by robots or whose health may be restored or who in other ways can be said to be affected by the envisioned robotic design.

Collaborative learning in general refers to a situation in which two or more people learn something together. We shall however work from the more in depth theoretical discussion of collaborative learning across disciplines and life situations created by the educational scholar Anne Edwards (2010, 2012). The interview questions thus seek to explore the conceptual framework developed by Edwards for collaborative learning across boundaries of diverse disciplines and practices, which take into account that the involved professionals all bring different kinds of expertise to bear, yet become capable of developing relational expertise towards reaching a common goal. Relational agency builds on an evolving expertise through collaborative learning understood as “a matter of recognizing what others can offer a shared enterprise and why they offer it; and being able to work with what others offer while also making visible and accessible what matters for you” (Edwards 2012, 26)

“[W]e observed efforts at alignment that grew out of growing understandings of what mattered for each profession. Interpretations of problems and alignments of practices were mediated by common knowledge which was made up of what mattered for each collaborating professional.”(ibid.) In working with others, practitioners must both exercise their core expertise (e.g. as social worker or psychologist) and demonstrate a willingness to relational expertise. The interview guide will explore how different affected stakeholders and roboticists may become relationally engaged in the same *problem space*, i.e. they have a common object of attention; and what it takes for a new type of common knowledge to evolve across fields of expertise, as well as obstacles for what Edwards’s calls “relational agency”. Relational agency is a capacity for collaborative learning that can (but not necessarily will) “emerge in a two stage process within a constant dynamic as people engage together in activities. It involves: (i) working with others to expand the object of activity so that its complexity is revealed, by recognizing the motives and the resources that others bring to bear as they too interpret it; (ii) aligning one's own responses to the newly enhanced interpretations, with the responses being made by the other professionals as they act on the expanded object” (Edwards 2010, 2012). However, most of these potentials and obstacles for collaborative learning

will only show up in the phase of analysis but the questions are carefully formulated to elicit such potential and obstacles when analyzed at a later stage.

Conducting interviews

It is a *semi-structured guide*, which means that the questions do not have to be posed in the exact way it is formulated here. It is designed for interviews with either individuals or smaller focus groups. The questions in this guide may be adjusted to the specific robot in question. Yet, the interviewer must adhere to the overall guiding principles of the above instruction:

1. When making the first contact make a short introduction of the purpose of the research and ask about confidentiality issues. Inform about the consent form, non-disclosure and the expected use of the interview (in this case in the REELER case write-ups). Explain that all data material will primarily be used as background material – however should it be used for other purposes (like description or quotes) it will be anonymized in the phase of analysis within the project and in case of publication of excerpts.
2. Note on a separate paper [NOT in the taped interview] the interviewee's gender, name, position and/or company name and the place of the interview as well as approximate age (20-30, 30-40, 40-50, beyond).
3. Explain the procedure again after the interview: the interviewee gets the interview back for approval and can via color codes decide how the material can be used in anonymized form.

The interviews seek the meaning of robot's role in the interviewees' life-world and the interviewer must register the contextual setting of both the content and the tone of the response

Try generally to make the interviewee answer in as concrete a manner as possible – e.g. ask the person to give concrete examples. For example (What do you do on a typical day...question).

Be aware of power relations between you and the interviewee as well as sensitive issues relating to e.g. gender, ethnicity and age.

The interview should be following the below general guidelines for conducting qualitative interviews. We are inspired by Steinar Kvale's 10 criteria of a good interviewer (Kvale 1996):

1. The interviewer must be knowledgeable and familiar with the topic of the interview (in this case by internet research beforehand on the robot in question and the affected stakeholders life situation expected to be affected by the robot).
2. Be structured but in a way that make the interviewee feel it is a conversation nor an interrogation. Always begin by giving an explanation of the structure and purpose of the interview and have the consent form signed. Follow the interview guide so all the necessary questions have been covered, but not necessarily in the stipulated order.

3. Be clear and ask the questions in a simple, easy and short way - but explain when necessary (but be aware of the non-disclosure in part 1 and 2). Never talk too much.
4. Be gentle and let people finish what they say. Be ethically sensitive if questions seem to elicit uncertainty and uncomfortable reactions.
5. Be sensitive and listen the interviewee
6. Be open and respond to what is important to the interviewee
7. Steer the interview. Never lose sight of the overall purpose
8. Critical-prepared to mildly challenge what is said by the interviewee to get more depth in answers
9. Remember previous answers and refer back to them when asking new questions where relevant. Never repeat a question like a parrot.
10. Interpret when relevant by summarizing what was said.

Structure of interview guides

The questions in our present REELER interview guides are structured/divided into three areas:

Part 1: [Interviewee's context & robots in general] Focus is on the participants' (affected stakeholders and roboticists) life-world and their (professional) use of technologies and their perception of, and encounters with, robots. This part of the interview is a general exploration of the affected stakeholders' and roboticists' general knowledge and understanding of robots. The interviewees will not be introduced to or talk about the particular robots in this part/phase.

Part 2: Public presentations of a specific robot (affected stakeholders) and the roboticists may be shown either public images of their own robot or public images of *other* robots. Roboticists may also be shown examples of affected stakeholders. This part of the interview is characterized by what is in full-view to the public. Justify your choices: Youtube, website, picture, etc. This is where the robot/and or affected stakeholders is presented to the interviewee in the public form. During this part it may be necessary to explain something about the technology/stakeholders – this should be solely by means of publicly accessible information.

Part 3: [Non-disclosure and/or confidential data] In this part of the interview, the interviewee is shown some confidential imagery in order to elicit new reflections/assumptions/expectations and the here roboticists can speak freely about 'their robot'.

If possible, this part of the interview could be done when the affected stakeholder is presented with the robot itself or the roboticists are talking about their 'own' robot. Here we show movies recorded in the roboticists' own labs/settings – we may have to sign non-disclosure agreements to be able to do this .

Example: "We will now show you a/more short movies of the prototype of the robot-technology tested on users"

VIII. References

- Arnould, Eric J. 1998. "Ethical Concerns in Participant Observation/ Ethnography", in *NA - Advances in Consumer Research, Volume 25*. Edited by Joseph W. Alba & J. Wesley Hutchinson. Provo, UT: Association for Consumer Research, 72-74.
- Association of Social Anthropologists (ASA) of the UK and the Commonwealth. 2011. "Ethical Guidelines for Good Research Practice." <https://www.theasa.org/downloads/ASA%20ethics%20guidelines%202011.pdf>
- Briggs, C. L. 2002. "Interviewing, power/knowledge, and social inequality." In *Handbook of interview research*. Edited by J. F. Gubrium & J. A. Holstein. Thousand Oaks, CA: Sage, 911-922.
- Brinkmann, S., & Kvale, S. 2005. "Confronting the ethics of qualitative research." *Journal of Constructivist Psychology*, 18: 157-181.
- Edwards, Anne. 2010. *Being an expert professional practitioner: The relational turn in expertise*. Dordrecht, The Netherlands: Springer.
- Edwards, Anne. 2012. "The role of common knowledge in achieving collaboration across practices." *Learning, Culture and Social Interaction*, 1: 22–32.
- European Parliament. 1995. *Data Protection Directive (95/46/EC)* of the European Parliament and of the Council of 24 October 1995. [Ethical Principles of Psychologists and Code of Conduct](#). Effective date Jan. 1, 2010 with amendment as of Jan. 1, 2017. American Psychological Association.
- Foddy, W. 1993. *Constructing Questions for Interviews*. Cambridge: Cambridge University Press.
- Flyvbjerg, B. 2006. "Five Misunderstandings About Case-Study Research." *Qualitative Inquiry*, 12(2): 219-245. doi:10.1177/1077800405284363
- General Accounting Office. 1991. "Using Structured Interviewing Techniques." Washington D.C.: Program Evaluation and Methodology Division.
- Gerring, J. 2006. *Case Study Research: Principles and Practices*. Cambridge: Cambridge University Press. E-ISBN:9780511268762
- Lindland, E. H. and Kendall-Taylor, N. 2012. Sensical Translations: Three Case Studies in Applied Cognitive Communications." *Annals of Anthropological Practice*, 36: 45–67. doi:10.1111/j.2153-9588.2012.01092.x
- Kvale, S. 1996. *Interviews. An Introduction to Qualitative Research Interviewing*. London: Sage Publications.
- Manago, A. M. and Greenfield, P. M. 2011. "The Construction of Independent Values among Maya Women at the Forefront of Social Change: Four Case Studies." *Ethos*, 39: 1–29. doi:10.1111/j.1548-1352.2010.01168.x

Marcus, G. E. 2005. "Multi-sited Ethnography: Five or Six Things I Know About It Now." *Problems and Possibilities in Multi-sited Ethnography Workshop*, 27-28 June 2005, University of Sussex. Accessed from: <http://eprints.ncrm.ac.uk/64/1/georgemarcus.pdf>

Pineda, B. L. 2001. "Creole Neighborhood or Miskito Community? A Case Study of Identity Politics in a Mosquito Coast Land Dispute." *Journal of Latin American Anthropology*, 6: 120–155. doi:10.1525/jlca.2001.6.1.120

Schiffer, M. B. 2002. "Studying Technological Differentiation: The Case of 18th-Century Electrical Technology." *American Anthropologist*, 104: 1148–1161. doi:10.1525/aa.2002.104.4.1148

Spier, L. 1929. *Religion and Art in Ashanti*. R. S. Rattray. With chapters by G. T. Bennett, Vernon Blake, H. Dudley Buxton, R. R. Marett, and C. G. Seligman. *American Anthropologist*, 31: 521–525. doi:10.1525/aa.1929.31.3.02a00210

Appendix A – Ethical guidelines

Attachments:

Example Non-disclosure Agreement

Interview consent form (P1)

Interview consent form (P3)

Cover letter for approval of transcription (P1)

Cover letter for approval of transcription (P3)

REELER fact sheet (for dissemination)

H2020-ICT-2016-1
ICT-35-2016
Enabling responsible ICT-related research and innovation
Responsible Ethical Learning with Robotics

Example Non-disclosure agreement

Date:

Parties:

Aarhus Universitet (AU), DPU, established in Nordre Ringgade 1, Aarhus C, 8000, Denmark, as coordinator is authorized on behalf of the Consortium Partners in accordance with the Consortium Agreement to sign this non-disclosure agreement with the Discloser.

(the Recipient)

and

(the Discloser)

Preamble

The REELER project aims at aligning roboticists' visions of a future with robots with empirically-based knowledge of human needs and societal concerns through a new proximity-based human-machine ethics that take into account how individuals and community connect with robot technologies. It is the aim of REELER to develop a REELER Roadmap with guidelines for collaborative learning between the robot community, stakeholders and citizens, so as to be able to design robots that are more relevant to citizens' needs and ethically take heed of societal concerns. To do so, members of the REELER project will conduct field observations and interviews about selected robots with their user/stakeholder environment.

The REELER consortium wishes to use the Confidential Information for including, but not limited to, analytical purposes, interviews, seminars, case studies, mini-publics, publication (the "Purpose").

1. The Discloser intends to disclose information such as documents and film and photos from [state as concretely as possible what kind of information/data and from which situations it is generated] (the "Confidential Information") to the Recipient for the Purpose.
2. By signing this agreement the Discloser accepts that the Confidential Information may be used for the Purpose in de-identifiable form without prior approval by Discloser. If the Recipient wishes to use any of the Confidential Information in an identifiable form, the Recipient shall present the relevant Confidential Information to the Discloser and the Discloser shall then decide whether or not approval can be given. The Discloser agrees to inform the Recipient of the decision within 2

weeks. If no response is given within this deadline, the Discloser shall be considered as having given consent to the Confidential Information being used as requested by the Recipient.

3. The Receiver is only – for the purpose of this Agreement – entitled to give the necessary people at the Receiver access to the Confidential Information, and the Receiver shall impose an obligation on all these individuals to act in accordance with this Agreement.
4. Confidential Information does not include information which:
 - a. is or in future comes into the public domain (unless as a result of the breach of this Agreement); or
 - b. which was already legally in the Receiver’s possession when the Receiver received or got access to the confidential Information.
 - c. the Receiver legally and without restrictions has received from a third party after the Receiver had received or gained access to the Confidential Information or;
 - d. the Receiver itself has developed subsequently and independently of the Confidential Information which the Receiver has received or gained access to.
5. Nothing in this Agreement will prevent the Recipient from making any disclosure of the Confidential Information required by law or by any competent authority.
6. Neither this Agreement nor the supply of any information grants the Recipient any license, interest or right in respect of any intellectual property rights of the Discloser except the right to use the Confidential Information solely for the Purpose.
7. The agreement shall be in force for a period of 4 (four) years from the last signature.
8. This Agreement is governed by, and is to be construed in accordance with, Belgian law. The Belgian Courts will have non-exclusive jurisdiction to deal with any dispute which has arisen or may arise out of, or in connection with, this Agreement.

The Discloser’s signature

Date

The Recipient’s signature

Date

H2020-ICT-2016-1

ICT-35-2016

Enabling responsible ICT-related research and innovation

Responsible Ethical Learning with Robotics

Example Non-disclosure agreement

Date:

Parties:

(the Recipient)

and

(the Discloser)

Preamble

The REELER project aims at aligning roboticists' visions of a future with robots with empirically-based knowledge of human needs and societal concerns through a new proximity-based human-machine ethics that take into account how individuals and community connect with robot technologies. It is the aim of REELER to develop a REELER Roadmap with guidelines for collaborative learning between the robot community, stakeholders and citizens, so as to be able to design robots that are more relevant to citizens' needs and ethically take heed of societal concerns. To do so, members of the REELER project will conduct field observations and interviews about selected robots with their user/stakeholder environment.

The REELER consortium wishes to use the Confidential Information for including, but not limited to, analytical purposes, interviews, seminars, case studies, mini-publics, publication (the "Purpose").

1. The Discloser intends to disclose information such as documents and film and photos from [state as concretely as possible what kind of information/data and from which situations it is generated] (the "Confidential Information") to the Recipient for the Purpose.
2. By signing this agreement the Discloser accepts that the Confidential Information may be used for the Purpose in de-identifiable form without prior approval by Discloser. If the Recipient wishes to use any of the Confidential Information in an identifiable form, the Recipient shall present the relevant Confidential Information to the Discloser and the Discloser shall then decide whether or

not approval can be given. The Discloser agrees to inform the Recipient of the decision within 2 weeks. If no response is given within this deadline, the Discloser shall be considered as having given consent to the Confidential Information being used as requested by the Recipient.

3. The Receiver is only – for the purpose of this Agreement – entitled to give the necessary people at the Receiver access to the Confidential Information, and the Receiver shall impose an obligation on all these individuals to act in accordance with this Agreement.
4. Confidential Information does not include information which:
 - a. is or in future comes into the public domain (unless as a result of the breach of this Agreement); or
 - b. which was already legally in the Receiver’s possession when the Receiver received or got access to the confidential Information.
 - c. the Receiver legally and without restrictions has received from a third party after the Receiver had received or gained access to the Confidential Information or;
 - d. the Receiver itself has developed subsequently and independently of the Confidential Information which the Receiver has received or gained access to.
5. Nothing in this Agreement will prevent the Recipient from making any disclosure of the Confidential Information required by law or by any competent authority.
6. Neither this Agreement nor the supply of any information grants the Recipient any license, interest or right in respect of any intellectual property rights of the Discloser except the right to use the Confidential Information solely for the Purpose.
7. The agreement shall be in force for a period of 4 (four) years from the last signature.
8. This Agreement is governed by, and is to be construed in accordance with, Belgian law. The Belgian Courts will have non-exclusive jurisdiction to deal with any dispute which has arisen or may arise out of, or in connection with, this Agreement.

The Discloser’s signature

Date

The Recipient’s signature

Date

H2020-ICT-2016-1

ICT-35-2016

Enabling responsible ICT-related research and innovation
Responsible Ethical Learning with Robotics

Interview consent form

Research project title: REELER – Responsible Ethical Learning in Robotics

Research investigator:

Interviewee's name:

Thank you for agreeing to being interviewed as part of the REELER research project. The interview will take about 1.5 hours.

Ethical procedures for academic research undertaken from Danish institutions require that procedures follow the regulations of the Danish Data Protection Agency. Interviewees must explicitly agree to being interviewed and how the information contained in their interview will be used.

- This consent form is to ensure that you understand the purpose of your involvement and that you agree to the conditions of your participation. We therefore ask you to read and sign this form to certify that you approve the following:
The interview will be audio recorded and video recorded and a transcript will be produced
- You will be sent the transcript of the audio recording and given the opportunity to correct any factual errors
- The transcript of the interview will only be analyzed by researchers affiliated with REELER
- Access to the interview transcript and video recording will be limited to researchers, research assistants and/or student helpers, who are part of the REELER research process
- Any summary interview content, or direct quotations from the interview, that are made available through academic publication or other academic outlets will be anonymized so that you cannot be identified, and care will be taken to ensure that other information in the interview that could identify yourself is not revealed
- The actual recording will be kept in a secured database in accordance with the regulations of the Danish Data Protection Agency and kept from 4 years after project end.
- Any variation of the conditions above will only occur with your further explicit approval.

Confidential information

As part of this interview you may be presented to confidential material about the REGAIN robot. By signing this consent form, I agree to not disclose or share any of the information presented to me here to anyone who is not part of the REELER project.

Quotation Agreement

- My words may be quoted directly and I agree to be quoted directly if my name is not published and a made-up name (pseudonym) is used.
- All or part of the content of your interview may be used:
 - In academic papers, policy papers or news articles
 - On our website and in other media that we may produce such as oral presentations
 - In an archive of the project as noted above

By signing this form, I agree that:

- I am voluntarily taking part in this project. I understand that I do not have to take part, and I can stop the interview at any time.
- The transcribed interview or extracts from it may be used as described above.
- I can request a copy of the transcript of my interview and may make edits to edit factual errors or if any issues are not transcribed/quoted correctly.
- I am able to ask any questions I might have, and I understand that I am free to contact the researcher(s) with any questions I may have in the future.

Participant's Signature

Date

Researcher's Signature

Date

H2020-ICT-2016-1

ICT-35-2016

Enabling responsible ICT-related research and innovation

Responsible Ethical Learning with Robotics

Interview consent form

Research project title: REELER – Responsible Ethical Learning in Robotics

Research investigator:

Interviewee's name:

Thank you for agreeing to being interviewed as part of the REELER research project. The interview will take about 1.5 hours.

Ethical procedures for academic research undertaken from Danish institutions require that procedures follow the regulations of the Danish Data Protection Agency. Interviewees must explicitly agree to being interviewed and how the information contained in their interview will be used.

- This consent form is to ensure that you understand the purpose of your involvement and that you agree to the conditions of your participation. We therefore ask you to read and sign this form to certify that you approve the following:
The interview will be audio recorded and video recorded and a transcript will be produced
- You will be sent the transcript of the audio recording and given the opportunity to correct any factual errors
- The transcript of the interview will only be analyzed by researchers affiliated with REELER
- Access to the interview transcript and video recording will be limited to researchers, research assistants and/or student helpers, who are part of the REELER research process
- Any summary interview content, or direct quotations from the interview, that are made available through academic publication or other academic outlets will be anonymized so that you cannot be identified, and care will be taken to ensure that other information in the interview that could identify yourself is not revealed
- The actual recording will be kept in a secured database in accordance with the regulations of the Danish Data Protection Agency and kept from 4 years after project end.
- Any variation of the conditions above will only occur with your further explicit approval.

Confidential information

As part of this interview you may be presented to confidential material about the REGAIN robot. By signing this consent form, I agree to not disclose or share any of the information presented to me here to anyone who is not part of the REELER project.

Quotation Agreement

- My words may be quoted directly and I agree to be quoted directly if my name is not published and a made-up name (pseudonym) is used.
- All or part of the content of your interview may be used:
 - In academic papers, policy papers or news articles
 - On our website and in other media that we may produce such as oral presentations
 - In an archive of the project as noted above

By signing this form, I agree that:

- I am voluntarily taking part in this project. I understand that I do not have to take part, and I can stop the interview at any time.
- The transcribed interview or extracts from it may be used as described above.
- I can request a copy of the transcript of my interview and may make edits to edit factual errors or if any issues are not transcribed/quoted correctly.
- I am able to ask any questions I might have, and I understand that I am free to contact the researcher(s) with any questions I may have in the future.

Participant's Signature

Date

Researcher's Signature

Date

H2020-ICT-2016-1
ICT-35-2016
Enabling responsible ICT-related research and innovation
Responsible Ethical Learning with Robotics

Cover letter regarding approval of transcript

Dear [Interviewee]

Thank you for taking your time to contribute to the REELER research.

Please find attached a unidentifiable transcription of your interview with [Researcher]. At this stage, we have applied an initial system of anonymity codes, which will be modified into more regular names, when we have collected our entire bank of data.

You will notice a number of transcription signs such as: _ % % and #, etc. These are for internal use only. Any public quotations will be stripped of such signs and unclear wordings will be rephrased into readable English.

As mentioned in the Interview Consent Form (signed by you at the time of the interview), The REELER project may wish to use quotations from this interview transcript in either an identifiable or unidentifiable form. I therefore ask you to indicate whether any parts of this transcript must be kept confidential and only used internally in the REELER project (i.e. Level 1) by colour-coding it red.

Example:

Interviewer: So, in practice, what do you think ... does it work or are do you experience may obstacles?
*Interviewee: Well, I think there are still many obstacles, but we also have some sucess stories. I definitely feel motivated to do more of this and since we have developed these courses now...It is really motivating to me that I actually find this work exciting. **But it's difficult for me to engage my colleagues – many of them do not see the point in making an effort, unfortunately.***

If you think the transcript of your interview contains factual errors, you can correct the text, but I ask you to use track change to make it easier for me to identify any changes to the text.

I kindly ask you to approve the transcript or if you have any comments, send these to me within 10 days, i.e. by [Date].

Thank you very much for your cooperation.

Kind regards,

[Researcher]

H2020-ICT-2016-1
ICT-35-2016
Enabling responsible ICT-related research and innovation
Responsible Ethical Learning with Robotics

Cover letter regarding approval of transcript

Dear [Interviewee]

Thank you for taking your time to contribute to the REELER research.

Please find attached a unidentifiable transcription of your interview with [Researcher]. At this stage, we have applied an initial system of anonymity codes, which will be modified into more regular names, when we have collected our entire bank of data.

You will notice a number of transcription signs such as: _ % % and #, etc. These are for internal use only. Any public quotations will be stripped of such signs and unclear wordings will be rephrased into readable English.

As mentioned in the Interview Consent Form (signed by you at the time of the interview), The REELER project may wish to use quotations from this interview transcript in either an identifiable or unidentifiable form. I therefore ask you to indicate whether any parts of this transcript must be kept confidential and only used internally in the REELER project (i.e. Level 1) by colour-coding it red.

Example:

*Interviewer: So, in practice, what do you think ... does it work or are do you experience may obstacles?
Interviewee: Well, I think there are still many obstacles, but we also have some sucess stories. I definitely feel motivated to do more of this and since we have developed these courses now...It is really motivating to me that I actually find this work exciting. But it's difficult for me to engage my colleagues – many of them do not see the point in making an effort, unfortunately.*

If you think the transcript of your interview contains factual errors, you can correct the text, but I ask you to use track change to make it easier for me to identify any changes to the text.

I kindly ask you to approve the transcript or if you have any comments, send these to me within 10 days, i.e. by [Date].

Thank you very much for your cooperation.

Kind regards,

[Researcher]

Responsible Ethical Learning with Robotics – REELER Fact Sheet

REELER is an H2020 project funded by the European Commission with 1,998,265 EUR from the 1st of January, 2017 – 31st of December 2019. Its main objective is to develop the REELER Roadmap for responsible and ethical learning in robotics.

Interdisciplinary research

REELER is a highly interdisciplinary project involving 4 European partners from the fields of anthropology, learning, robotics, philosophy, and economy:

Coordinator Cathrine Hasse, Aarhus University, Denmark

Partner Maria Bulgheroni, Ab.Acus. srl, Italy

Partner Kathleen Richardson, De Montfort University, United Kingdom

Partner, Andreas Pyka, Hohenheim University.

The project is a research-driven collaboration between SSH-RRI and Robotic-ICT communities, which aims to raise awareness of the human potential in robotics development, with special attention to distributed responsibility, ethical and societal issues and collaborative learning. REELER's high level of multi-disciplinarity will assure cooperation, comprehension and acceptance of SSH-research in the robotics research community.

Main objective

The project aims at aligning roboticists' visions of a future with robots with empirically-based knowledge of human needs and societal concerns through a new proximity-based human-machine ethics that take into account how individuals and community connect with robot technologies.

The main outcome of REELER is a research-based roadmap presenting:

- a) ethical guidelines for Human Proximity Levels,
- b) prescriptions for how to include the voice of new types of users and affected stakeholders through Mini-Publics,
- c) disclosure of assumptions in robotics through socio-drama
- d) agent-based simulations of the REELER research for policymaking.

At the core of these guidelines is the concept of collaborative learning, which permeates all aspects of REELER and will guide future SSH-ICT research.

Impact

Integrating the recommendations of the REELER Roadmap for responsible and ethical learning in robotics in future robot design processes will enable the European robotics community to address human needs and societal concerns. Moreover, the project will produce powerful instruments able to foster networking and exploit potentialities of future robotics projects.

Contact

For further information about REELER, please contact

Project Coordinator Cathrine Hasse: caha@edu.au.dk, +45 2323 3631

Quality Manager Stine Trentemøller: stinet@edu.au.dk, +46 9350 8555

Appendix B – Data handling

Attachments:

REELER transcription guide

Use the following header in all documents: Project: Interviewer(s): Interviewee(s): Affiliation: Transcriber:	Example: Project: REELER Interviewer(s): Cathrine Hasse Interviewee(s): Macia Affiliation: Abacus Transcriber: Jessica Sorenson
---	---

Signs

Please use the following signs when transcribing:

- % when a word is unclear/inaudible
- % % when you want to write a suggestion for an inaudible/unclear word
Example %saturation meter% (write time in recording)
- / marks an unfinished sentence
- _ (underscore) marks a notable pause
- . (full stop) marks a full sentence
- , (comma) use as best as you can to create comprehensible sentences
- [] insert around non-lexical expression
Example [laughter]
- " " Use only when the interviewee indicates directly quoted or paraphrased speech
Example INTERVIEWEE: But then I said, "Perhaps we should try this."
- [P] [P] indicates potentially identifying information. Insert every time there is mention of a specific person, institution, or place that can lead back to the interviewee's identity. NB: Do not omit the name or institution, but insert [P] just after so that we can quickly make a search to later remove all names/places.
Example I worked at Starbucks [P] in Berlin [P]
- Indicates speech interrupted by another person speaking
Example CH: Why do you think--
TGM: --Because they have a different educational background...
- [Sic] Malapropisms: alternate forms of existing words used to show that the word is not a typo, and may even be an evolving new term.
Example roboticist → robotician
- # # Simultaneous speech
Example Cotés du Rhone: --Because they have a different educational#
CH: #Yeah, okay.#
Cotés du Rhone: #background...

Initials in transcription

Identify the interviewer by initials (for first, middle, and last names), followed by a colon

Example CH: Which three to five technologies do you...

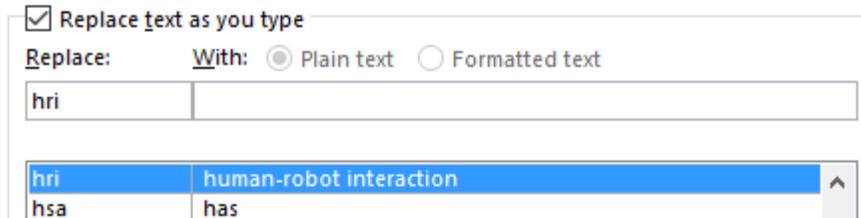
Identify the interviewee by initials (for first, middle, and last names), followed by a colon:

Example TMG: I think that...

Tip: To spare yourself writing initials and names in full each time, you can set Word's autocorrect to write the names each time you type a specified shortcut.

Example C (autocorrect to CH:) and TM (autocorrect to TMG:)

Go to [Word → File → Options → Proofing → Autocorrect options] and add the new autocorrect code: [(Danish) Word-indstillinger → Korrektur → Indstillinger for autokorrektur]



Line spacing

Use double-line paragraph spacing to indicate turn in dialogue. Adjust paragraph settings or hit the return / enter key twice.

Example CH: Do you feel you've become a better nurse?

TMG: Maybe. That depends / I don't understand [laughter], what you / well, a better nurse?

CH: Yeah.

Time intervals

Mark inaudible or unintelligible words with % and a time interval [time - time]

Example CH: Do you feel % [05:34 - 05:35] better nurse?

Mark the time in the text, after every ten minutes of recording at least.

Example CH: Do you feel you've become a better nurse?

[9:53]

TMG: Maybe. That depends...

Editing of speech errors versus interpretation

In general, type precisely what is said, including incomplete sentences.

Do not interpret the speech to give it meaning, and do not edit the speech by inserting or omitting words to make the sentence more comprehensible.

Maintain the original speech whenever possible. Make use of the forward slash (/) to indicate an incomplete sentence. If a misunderstanding in meaning might occur from a speech error, then it is okay to correct the error or to mark with [sic].

Example CH: Try to describe how you might have handled that, pacifically (= specifically).

TMG: I probably would of (= have) found my colleague.

(Danish) CH: Prøv at beskrive hvordan du håndterer det i praktisk (= praksis)

TMG: Jamen det gør jeg ved og (= at) finde min kollega

But: Try, whenever possible, to avoid editing what is said. When in doubt, leave it be.

Comments and your own systems

If you have comments, insert them as word-comments attached to the dialogue you wish to comment on.

Naming of files and file format

The name of the transcription file should match the name of the sound file you are transcribing. End the file name with _DRAFT.

Example Soundfile: REGAIN_interview 1_part 1.m4a

Transcription: REGAIN_interview 1_part 1_DRAFT.doc

Typeface and font size

Always use Times New Roman and 12pt. font. Do not use bold, italics, or underlining.

What should I do with a completed transcription?

Please upload the transcription to your folder in SharePoint and notify the local administrator. Do not email it as it contains personal material that must be kept confidential.

Further questions

Contact the local administrator if you have any questions during the transcription process.

Appendix C – Interview guides

Attachments:

Interview guide for Roboticists

Interview guide for Affected Stakeholders

Interview guide for Roboticists

PART 1

[Theme: Interviewee's context & robots in general]

Focus is on the interviewee's background and general life world and general statements on ethics in robotics. This part of the interview is a general exploration of the roboticists' general knowledge and understanding of robots in society. The interviewees will not be introduced to or talk about the particular case robot in this part of the interview.

1. What is your educational background?
2. How did you end up in your present position?
3. Could you describe your daily life - for example, yesterday, what did you do?
4. Give me five words you associate with 'ethics'.
5. Give me five words you associate with 'robot'.
6. Do you think robots in general will change your life/your work in the future? For instance, ten years from now?
7. Would you be interested in giving up your work to a robot and live on a basic income?
8. Do you foresee any general ethical issues in the use of robots?

PART 2

The interviewer may show the roboticist public material of the case robot. The purpose of showing visual material is to give the interviewer something concrete to refer to.

The questions in this part of the interview enquire about fully public representations of robotics. Justify your choices: you-tube, website, picture, etc. in the case write-up.

Scenario: We will show you a case [show movie/pictures of affected stakeholders and/or other robots]:

1. Does this adequately represent how you see the robot in actual use?
2. Will this robot change the life of some people?

PART 3

Here you may show real-life visual material from your fieldwork (i.e. possibly confidential data covered by the Non-disclosure Agreement) of the case robot, if it makes sense. Feel free to convey any information you have in accordance with the non-disclosure agreement.

Many of the below questions are likely to elicit responses that answer some of the other questions on the list – but they are all kept here as a check-list.

1. Could you describe all the components and functions in this robot?
2. Why was this robot created – and by whom? List all phases (TRL) + partners and roles.
3. How would you describe your approach to the design process?

4. Was the design problem clear at the beginning of the process?
5. What is the stage of technological readiness of your robot? (TR level)
6. Would you say your design work was part of robot research or industrial development, and is there a business model?
7. What have been the main technical challenges for designing your robot?
8. What have been/what do you envision as the main challenges related to human-robot interaction of this robot?
9. Did you involve users [affected stakeholders] in the design process?
 - 9a. And if so, how?
 - 9b. How has this influenced the design process?
10. What is the range of stakeholders you have considered?
11. Have they been involved in the decision-making process?
 - 11a. If so, how?
12. Have you used any design methods that help to understand the impact your robot will have on people such as prototyping, modelling or working with potential users [affected stakeholders]?
13. [if relevant according to TECHNOLOGICAL READINESS LEVELS] What ways have you used to test if your robot is suitable for users [affected stakeholders]?
 - 13a. At what stage of development have you done this?
14. What have you learned most during the design process and has your opinion about why the robot was created changed?
 - 14a. How/Why?
15. What kinds of issues of collaboration have you run into and how have you resolved them?
16. Could you imagine collaborating (more) with social scientists when designing robots?
17. Are there limits to what this robot should do and what human functions it should replace?
18. Might there be any undesirable consequence of your robot?
19. Has your design process been influenced by policymakers and funding possibilities (e.g. standards)?
 - 19a. If yes, how has this affected your design so far?
20. How do you think ethics should be included in the design process and should that be part of the general roboticists' education?

Optional question:

21. Did this interview, or this type of discussion, change your perception of the design of the robot and how people in your field should be educated/trained in the future?

Interview guide for Affected Stakeholders

PART 1

[Theme: Interviewee's context & robots in general]

Focus is on the interviewee's (affected stakeholder's) background and general life world, their (professional) use of technologies, perception of, and encounters with, robots.

Part 1 is a general exploration of the affected stakeholder's general knowledge and understanding of robots in society. The interviewees will not be introduced to or talk about the particular case robot in this part of the interview.

If it makes sense, you could construct a case for the interviewee to relate to in his/her answers. If you interview a stakeholder who is/will be affected by the robot in his/her work life you say 'work life' in this part. If it is a stakeholder who may be/is affected by the robot in his/her private life (e.g. a relative of a robot-user) you say daily life.

1. What is your educational background?
2. How did you become an X [state interviewee's professional position]?
3. Could you describe your daily life/work life - for example, yesterday, what did you do?
4. Give me five words you associate with 'ethics'.
5. Give me five words you associate with 'robot'.
6. To what extent do you already use robots in your daily practices (home or work)?
7. Do you think robots will change your life / work in the future? For instance, ten years from now? Will it change the work you are doing / have done?
8. Do you foresee ethical issues in the use of robots?
9. Could you imagine collaborating with roboticists and what would you suggest robots would do to improve your life situation?

PART 2

[Theme: Public presentations of the case robot and the affected stakeholder's general perspective on this.]

Show public presentations of the specific case robot to the affected stakeholder. The questions in this part of the interview enquire about fully public representations of the case robot. During this part, it may be necessary to explain something about the technology – this should be solely by means of publicly accessible information.

Justify your choices: you-tube, website, picture, etc. in the case write-up

Scenario: We will show you a case (show movie or other visual material of the case robot):

1. Please describe what you see.
2. What do you think this robot is doing and why do you think it was created?
3. How could you imagine this robot in your life-world?

4. Could it replace any human functions, and should it?
4a. Why?
5. How will it change your work/life?
6. Do you envision any ethical issues in implementing/working with/working alongside this robot?
7. If it were incorporated into your life world, what should change in its design, if anything?
7a. Do you think anything would surprise the roboticists when it is introduced to your own practice?

PART 3

[Theme: Non-disclosure/confidential data – remember to inform the interviewee that you are presenting and talking about confidential material, which they cannot report to others.]

In this part of the interview, the interviewee (the affected stakeholder) may be shown non-disclosure/confidential imagery or quotes from roboticists, obtained at the field site of the case robot in order to elicit new reflections/assumptions/expectations about it.

Begin by showing the interviewee some pictures or videos from your fieldwork (this material is likely to be covered by the Non-disclosure Agreement). Feel free to convey any information you have in accordance with the non-disclosure agreement.

1. Describe what you see. How does it compare to what we previously showed you?
2. Have your opinions about what the robot is doing and why it was created changed? How?
3. Where do you think this robot could be of most benefit and to whom?
4. How could you imagine this robot in your life-world? Could it replace any human functions, and should it? Why?
5. Do you envision any ethical issues in implementing / working with / working alongside this robot?
6. If it were incorporated into your life world, what should change in its design, if anything?
6a. Do you now think anything would surprise the roboticists when it is introduced to your own practice?
7. What do you now think is the ethical responsibility of roboticists?
7a. Who created this robot?
8. What is your ethical responsibility in relation to this robot?
9. Where do you think this robot could be of most benefit and to whom?
10. Do you think there is a difference in who could benefit from working with this robot and who would be excluded doing so?
11. Are there situations in which you would not consider using this particular robot?
12. Has this interview changed your perceptions about robots in the future?
13. Has this interview changed your perceptions about humans in the future?