
Avoiding and Mitigating Ethical Traps in Technocentric Fieldwork

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ABSTRACT

We are witnessing an increase in fieldwork within the field of HCI, particularly involving marginalized or under-represented populations. This has posed ethical challenges for researchers during such field studies, with "ethical traps" not always identified during planning stages. This is often aggravated by the inconsistent policy guidelines, training, and application of ethical principles. We ground this in our collective experiences with ethically-difficult research, and frame it within common principles that are common across many disciplines and policy guidelines – representative of the instructors' diverse and international backgrounds.

CCS CONCEPTS

• **Social and professional topics** → Codes of ethics

KEYWORDS : Ethics

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1 INTRODUCTION

Conducting research in an ethical manner is fundamental to all scientific and engineering disciplines. This is particularly critical when the research involves human participants. In most cases, preparing for a study or evaluation involves a formal process of receiving approval from an administrative body responsible for ensuring all research follows sound ethical principles. For example, in Canada, these bodies (Research Ethics Boards) are present in all publicly-funded institutions and are guided by the Tri-Council Policy on Ethical Conduct for Research Involving Humans [1]. Similar governance exist in the United Kingdom (e.g. the Ethical Guidelines for Good Research Practice established by the Association of Social Anthropologists of the UK and the Commonwealth), while in other countries such as the US this is specific to each institution; nonetheless, the principles are shared across countries and disciplines.

For most research, the application of such guidelines is straightforward. However, we are recently seeing a wider and changing range of field studies in Human Computer Interaction (HCI), from traditional usability evaluations to ethnographic research and to user-centered or participatory design. These are prompted by the need to study an ever-increasing diversity of emerging technologies (particularly mobile) that afford new interactions but also are often used in unexpected ways and in atypical contexts (for example, research on mobile interfaces providing health or educational support for at-risk user groups [6]). User populations have also changed; they now often include vulnerable groups, who may benefit the most from our research but potentially suffer from researcher engagement. These can often pose various serious ethical dilemmas – when the realities of field research do not match or even contradict the formal requirements of the ethical approval process [9]. The severity and complexity of such ethical dilemmas is evident in the case studies presented at workshops such as [10].

While ethics has long been an essential part of the planning process for techno-centric human subject research [5], new practice-based methods can more dynamically affect all aspects of ethically conducting the research: privacy, confidentiality, consent, harm and risks, trust and authority. To a certain extent, our community is adapting to the ethical challenges prompted by the changing nature of the evaluations and field studies [1,2,3]. However, these are isolated examples – as we have seen in research such as our own preliminary investigation [7], we are often unprepared to cope with such challenges.

In this tutorial we will explain the key principles that guide research with human participants, and how these apply to field studies of interactive technologies. This is largely based on existing policies that have been adopted nationally in some places or specific to certain disciplines or professional associations. We will discuss the gaps that exist between these guidelines and the challenges of conducting fieldwork of mobile interactive technologies, particularly in sensitive or difficult environments. These will be exemplified by cases studies of ours and our colleagues' recent research. A discussion of examples brought forward by the audience will also be facilitated.

2 LEARNING OBJECTIVES

This course aims to provide attendees with the theoretical background and practical examples that can assist them in tackling the ethical implications they may face when conducting field trials of mobile technologies or lab-based experiments with vulnerable users. This will be grounded in common principles transcending national or institutional guidelines. The learning focus will be on core principles rather than on the specific “letter of the law”, thus allowing attendees to better contextualize the general ethical principles to the particular discipline or country where they conduct their own research.

3 OUTLINE

The course will blend the presentation of formal concepts with audience participation and with discussions of case studies. The tutorial will be structured along several core parts:

- A survey of the existing ethical principles and body of knowledge, together with a review of examples of current policies and regulatory frameworks.
- A presentation and small-group analysis of several relevant case studies that will help the audience enrich their understanding of the approaches taken by researchers in coping with such challenges. (i.e. “How would you handle this ethical situation?”)
- A plenary discussion of cases and examples brought forward by the tutorial participants.

4 COURSE MATERIAL

This course is based on a seminar presented several times to both graduate students and faculty in Canada. The course has been accepted for presentation at MobileHCI 2016, and CHI 2017, and CHI 2018. Information about the course can be found at: <http://www.hci-ethics.org/CHI2019>, where course materials and handouts are also made available to registered course participants.

5 BENEFITS TO ATTENDEES

We are expecting an increase in the research conducted on many emerging technologies, especially in the space of interactive, mobile, ubiquitous digital interfaces and devices. Not only are such technologies evolving rapidly, but their contexts of use and their users (especially marginalized populations) are constantly being redefined. By offering this tutorial, we are confident that participants new to HCI (and to CHI in particular) will become more aware of and better prepared to navigate the challenges of fieldwork of mobile and/or interactive technologies, especially with vulnerable users. We believe that more experienced participants will benefit from the case studies discussions and will renew their scholastic interest in re-assessing how we

approach HCI research from an ethical perspective. Our hope is that this tutorial will serve as one of the many stepping stones to improving the dialogue that (should) exist between researchers and relevant stakeholders that will better prepare our community for the new ethical challenges we are facing in HCI research.

6 DURATION, FORMAT, AND PARTICIPANTS

The course aims to be highly interactive. We welcome discussions from the audience about their particular studies and we will answer questions about the challenges or dilemmas attendees are facing in designing and conducting their own research in an ethical manner. We particularly encourage participants to submit ahead questions about their ethical challenges. An online question submission system (with a URL sent to registered participants) allows course instructors to take questions from participants about their interesting ethical dilemmas or cases they have encountered. The URL is also included in all announcements advertising the course. These submissions are reviewed by the instructors and by the contributing co-authors, and a curated selection of such challenges or questions is then used during the tutorial for groupwork analysis.

Tutorial duration: 2 units (160 minutes), with material that can be adapted to 1 unit as well (reducing the number of case studies).

Participants: The course welcomes all attendees with interest in or who have conducted field studies of mobile interactive technologies, regardless of the particular ethics approval process or policy framework that is relevant to their discipline or country where this is conducted. No prior knowledge or experience is required.

Enrolment: The course is advertised through the SIGCHI mailing lists and social media channels.

7 INSTRUCTORS' BIOGRAPHIES

Prof. Cosmin Munteanu is an Assistant Professor at the Institute for Communication, Culture, Information, and Technology at University of Toronto Mississauga and Director of the Technologies for Ageing Gracefully lab. Cosmin has conducted research on the ethical aspects of conducting technology-centric ethnographies and fieldwork and on issues of digital divides and interactive technologies for marginalized populations. Cosmin is an organizer for the Workshop on Ethical Encounters in Human-Computer Interaction (held at ACM CHI 2015, 2016, and 2017), which aims to engage multidisciplinary researchers in a dialogue about the ethical challenges faced in fieldwork with emerging interactive technologies. He has served as scientific reviewer for ethics applications during his tenure at the National Research Council Canada, is currently a member of the ACM SIGCHI Committee on Ethics, and is actively conducting research in the field of ethics as a recipient of a Social Sciences and Humanities Research Council of Canada Knowledge Synthesis Grant.

Dr. Roisin McNaney is a Lecturer in Digital Health at Bristol University. Her research interests focus around the role that digital technologies might play in supporting self-monitoring

and management Practices in people with Parkinson's specifically and chronic health conditions more generally. She comes from a clinical background originally and has experience working in both clinical and HCI research environments. She is one of the organizers of the Workshop on Ethical Encounters in HCI held at CHI 2016 and 2017.

Dr. Jenny Waycott is a Lecturer in the Department of Computing and Information Systems at the University of Melbourne. Her current work focuses on the design and use of new technologies to support older adults who are socially isolated. Jenny is the principal organizer of the CHI Workshop Series on “Ethical Encounters in HCI”, as well as serving as a full member on the ACM SIGCHI Ethics Committee.

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