

Essay

Ethical risks of pursuing participatory research as an industrial doctoral student[†]

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Abstract: In this essay, I discuss ethical risks of pursuing participatory research as an industrial doctoral student. I particularly focus on two facets. First, ethical questions that may arise as a consequence of the dual character of the work format, i.e. being both an academic student and a practitioner in the field of study. Second, ethical consideration in relation to a participatory research method in which the researcher recognises his or her role as a change agent within the system, but studies the system as a whole. I conclude that there might be several ethical risks associated with such research, of which the doctoral student should be conscious and transparent.

Keywords: Research ethics, industrial doctoral student, participatory research

1. Introduction

Etzkowitz and Leydersdorff [1] showed that universities play a more prominent role in innovation cycles in knowledge societies than previously envisioned when they introduced the triple helix view of university-industry-government relationships. Following this notion, the Swedish foundation for the advancement of knowledge and competence development urged closer cooperation between industry and academia. Thus, in 1996, they offered partial funding to universities on conditions that they agreed to cooperate with companies in the education of industrial doctoral students. The response to the call was vast and by 2000, thirteen industrial research schools had been established at Swedish universities [2]. At present, Chalmers University of Technology (Chalmers) has approximately 160 industrial doctoral students, defined as doctoral students who are employed by external organisations while pursuing graduate studies at Chalmers as part of their employments.

Thune [3] reviewed theoretical assumptions and empirical findings in relation to the roles and experiences of industrial doctoral students. Among other things, he found that industrial doctoral students typically occupy three roles simultaneously, making them highly important in industry-academy relations: knowledge producers, knowledge brokers and network agents. Salminen-Karlsson and Wallgren [4] labelled this position as boundary subject for knowledge transfer. They moreover proposed the use of phronesis to study the knowledge transfer, as the emphasis of phronesis is on the ethical aspects of knowledge.

In this essay, I discuss ethical risks of pursuing participatory research as an industrial doctoral student. I particularly focus on two facets. First, ethical questions that may arise as a consequence of the dual character of the work format, i.e. being both an academic student and a practitioner in the field of study. Second, ethical consideration in relation to a participatory research method in which the researcher recognises his or her role as a change agent within the system, but studies the system as a whole.

I first describe my on-going doctoral project, which serves as case study. Then I recognize seven ethical aspects of conducting such research, using a review of Zeni [5] and Khanlou and Peter [6] as point of departure. Drawing on input from two stakeholder interviews, I also identify potential ethical risks and mitigation measures in relation to these aspects. The first interviewee is one of my academic supervisors (IP1) and the other is my industrial manager (IP2). Lastly, I summarise my findings and point out how others can build on my findings.

2. Doctoral research project

Västra Götalandsregionen (VGR) established my doctoral position in order to develop a basis for long-term strategic decisions regarding the development and implementation of Mobility as a Service (MaaS) that contribute to regional goals. They also hope to gain insight into the potential role of public transport in a future, integrated mobility system. More specifically, I am expected to study local, national and international cases of MaaS development through participatory observation, stakeholder interviews, user surveys and textual analyses. The goal is to generate new knowledge regarding the following topics: a) the innovation process, and the public sector’s roles and responsibilities in it, b) key requirements for sustainable development, adoption and use of MaaS, and c) potential users, their likely behavioural changes, and the effects on sustainability.

Thus, my position implies that I am both a regional developer providing the regional politicians with a basis for decisions regarding the development of MaaS, and an academic scholar researching the development of MaaS. In other words, my role has a dual character, as visualised in Figure 1. I define this approach as a form of participatory action research (PAR), although I am not focusing on analysing the effects of my interventions in the system.

My work is funded by VGR (75%) and K2 - The Swedish knowledge centre for public transport (25%), while my academic affiliation is Chalmers. Following Elias et al [7] and Smith et al [8], I have visualised my threefold creed and the most important associated stakeholders in Figure 2.

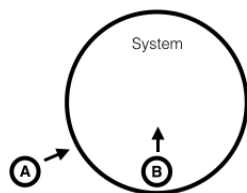


Figure 1: Dual role as researcher (a) and practitioner (b)

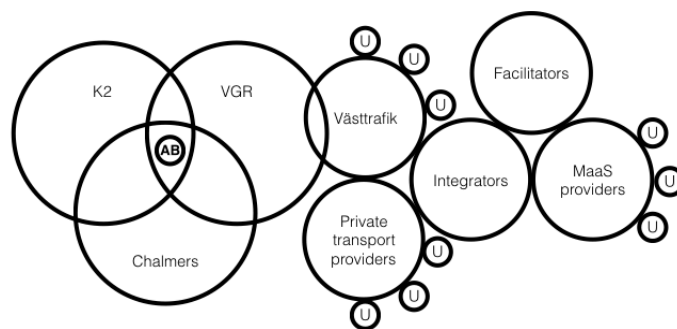


Figure 2: Key stakeholders (u = end users of services)

3. Ethical risks and mitigation measures

Zeni [5] argues that the common conception, that participants are not at risk if the research is merely unobtrusive observation of behaviour, is irrelevant for PAR since PAR never can be detached. Further, Khanlou and Peter [6] discuss how participants face risks since PAR is dedicated to challenging the status quo. However, in my case, I do not focus on the effects of my contribution to the system. Thus, I find it relevant to discuss *threats* in a broader sense.

Both interviewees focus their threat discussions on misuse of information. They believe that my regional developer role is likely to give access to material that was not meant for academic exposure, be that either sensitive business information or collegial small talk. On the contrary, study objects might share information with me as a researcher that they do not want my colleagues at VGR to take into account in their work. Thus, IP1 urges me to pay close attention to what information is attributed to what role, while IP2 stresses the importance of understanding the roles and perspectives of all involved actors in the ecosystem.

Citing Cornwall and Jewkes [9], Khanlou and Peter [6] state that the knowledge gained from PAR is focused upon action, not understanding alone”. Moreover, Khanlou and Peter [6] argue that

a protocol using a PAR framework should state both how participants have been involved and how they will benefit. Thus, I find it vital to reflect on the *value offering* of my research project.

However, IP2 does not agree that it is relevant whether specific participants or organizations gain from my research. Rather, IP2 finds it vital to focus on the system and on how the system as a whole can benefit, i.e. the societal impact. Going even further, IP1 states that the scientific contribution is the key value of the research project, while the ambition of societal impact is an admirable, but not an implicit goal.

Khanlou and Peter [6] recognize that standard procedures for independent review can be cumbersome to execute in shifting environments and agile projects, in which action researchers typically find themselves. Relating this to my research project, I wish to examine how to mitigate the potentially inherent *subjectivity* of my insider-perspective.

Again, neither IP1 nor IP2 see any great risk. They do not find it probable that my research results would reflect the view of my employer instead of portraying an objective understanding. As long as you listen to and consider all types of actors you will be fine, they say. IP2 also adds that my results will be publicly published. Thus, involved actors will notice and criticize any prejudice.

Zeni's [5] recommends researchers to reflect on the studied individuals, groups and communities, and internal power relations. For my research project, I find it relevant to consider *sampling*, i.e. how I choose which cases to study and which organizations to include in the studies, especially as my employer is a part of the studied system.

The discussion of selection of study objects fails to provoke my interviewees to foresee any ethical dilemmas. Instead, while IP2 says that the study objects in large are predefined by the scope of the initial project proposal, in which I was not involved, IP1 emphasises that the industrial role strengthens the research project through better potential to understand the range of possible study objects and their different perspectives, above anything else.

PAR is not a research method in itself. Thus, research and design methodology are not directed by the approach, but rather by contextual factors [6]. Still, I foresee potential implications on the *scientific validity* of my work from the dual role. Similarly, arguing that participating researchers are not 'flies on the wall', Zeni [5] stresses that researchers need to examine their own subjectivity.

IP1 shares my concern. There is indeed a risk that I either consciously or unconsciously 'touch up' my material to portray my employer and other organizations with which I collaborate in a better light. To mitigate this issue, IP1 believes that I firstly must decide whether my main loyalty is with my employer or with my research results, and what I will do if I arrive at uncomfortable conclusions. Secondly, I should declare my position to the involved actors. Moreover, both interviewees say that I should be transparent about my dual role, both during data collection and when presenting results. This will show that I am aware of the situation and give others a chance to reflect on my role and credibility. Lastly, IP1 also notes that I will indeed 'contaminate my test tubes' as I am involved in the system. I have to consider this effect in my analyses.

Zeni [5] claims that traditional procedures for informed consent are unfitting for field research settings. Instead, he argues for dialogue. In my case, I find it important to debate *transparency*, i.e. how I can make it clear for participants, when they are subject of research and when they are not, as I am likely to meet them both as researcher and practitioner.

Similarly to earlier comments, both interviewees stress the importance of continuously making sure that study objects are aware of my dual role, and in what processes they are participating. IP2 also believes that I should emphasize the goal of my research as well as my system view approach.

Khanlou and Peter [6] state that unique ethical concerns can arise due to the blurred line between researcher and participant in PAR, and suggest guidelines for e.g. interpretation and ownership of data, authorship and the dissemination of findings. Accordingly, for my work, I find it relevant to discuss *data handling*, i.e. how I can use, share and publish data.

IP1 declares that, in general, all data that I will use as basis for my analyses should be open for review. Yet, IP2 again recognises that I will gain access to a lot of sensitive information in my regional developer role. Thus, IP2 identifies it as vital that I double check with informants before sharing data with research colleagues as well as prior to publishing papers.

Lastly, following Zeni's [5] 'golden rule', I perform a *sanity check* by posing ethical questions of more general nature to the interviewees. In sum, they both think that the likely consequences of my research fit with their personal values and would want the project to be done if they were participants, which IP2 is.

4. Concluding remarks

I agree with my interviewees; there are indeed ethical risks associated with my research project. The dual character of my role as industrial doctoral student pursuing participatory research may be difficult for participants to comprehend. I might, consciously or unconsciously, portray my employer and associated companies in a favourable light. I will have access to data that I should neither share nor publish. I will impact the system I study. In order to mitigate these ethical risks, I must be conscious of and transparent regarding them during the entire research process.

However, I am convinced that the fact that I participate in the system I study also leaves me in a better position to take ethically sound decisions in relation to my research project, basically because I am involved. Being involved in the system implies that I can experience potential implications of the actions I undertake as a researcher. Thus, I might develop a better ability to predict and understand the consequences of my research, compared to if I solely observed. The parallel involvement and analytical distance that my work format entails might furthermore provide capacity to provoke additional attentiveness to the existence of multiple perspectives, including awareness of my personal viewpoint. Hence, in terms of ethics, I believe that there are also several positive sides to pursuing participatory research as an industrial doctoral student, although I do not explicitly emphasise them in this essay.

Finally, I would like to add that I do not think that the ethical risks identified and discussed in this essay are unique to either my research format or my method. I believe that most researchers in one way or another have to deal with e.g. being subjective or inhabiting multiple roles simultaneously. Hence, the seven ethical aspects I have discussed might be relevant for all doctoral students to consider, i.e. *threats*, *value offering*, *subjectivity*, *sampling*, *scientific validity*, *transparency* and *data handling*. However, to validate this assumption, the approach should be generalized and applied to other industrial contexts.

References

1. Etzkowitz, H., Leydesdorff, L. A., & others. (1995). Universities and the global knowledge economy: a triple helix of university-industry-government relations.
2. Wallgren, L., & Dahlgren, L. O. (2007). Industrial doctoral students as brokers between industry and academia: Factors affecting their trajectories, learning at the boundaries and identity development. *Industry and Higher Education*, 21(3), 195–210.
3. Thune, T. (2009). Doctoral students on the university–industry interface: a review of the literature. *Higher Education*, 58(5), 637.
4. Salminen-Karlsson, M., & Wallgren, L. (2008). The interaction of academic and industrial supervisors in graduate education. *Higher Education*, 56(1), 77–93.
5. Zeni, J. (1998). A guide to ethical issues and action research [1]. *Educational Action Research*, 6(1), 9–19.
6. Khanlou, N., & Peter, E. (2005). Participatory action research: considerations for ethical review. *Social science & medicine*, 60(10), 2333–2340.
7. Elias, A. A., Cavana, R. Y., & Jackson, L. S. (2002). Stakeholder analysis for R&D project management. *R&D Management*, 32(4), 301–310.
8. Smith, G., Sochor, J., & Karlsson, M. (2017). Procuring Mobility as a Service: Exploring dialogues with potential bidders in West Sweden. Accepted to ITS World Congress 2017 Montreal, October 29 – November 2.
9. Cornwall, A., & Jewkes, R. (1995). What is participatory research? *Social science & medicine*, 41(12), 1667–1676.

