A Concern for Engaged Scholarship

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A concern for engaged scholarship

The challenges for action research projects

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Abstract. In SJIS volume 20 (2008), Mathiassen and Nielsen analyzed engaged scholarship in Scandinavian IS research. They conclude that the collaborative research practice and tradition for conducting action research projects might be jeopardized by a recent and general tendency to publish in compliance with traditional IS research publication channels: Investing a substantial amount of time in collaborating with industry partners and communicating results specifically to practitioners does not contribute efficiently to maintaining a high publication volume in academic journals. In this article, I contribute to a debate concerning this issue. Action research is without doubt an exciting and relevant research strategy for IS providing first-hand experiences of IS theory in practice. However, the recent publication trend may be incommensurable with some of the characteristics of engaged scholarship as represented by two critical challenges inherent when conducting action research projects: (1) Action research is a very time-consuming way of producing empirical data and there is a high risk for the project not evolving as planned, which might lead to the failure of acquiring the anticipated empirical data. (2) Action research is also personally demanding and challenging because it entails a close engagement with and commitment to collaborating industrial practitioners. I characterize action research projects and compare action research to the case study research approach. I present the above mentioned challenges of action research and give examples from my own experiences. Finally, I discuss possible ways for the IS community to sustain engaged scholarship and maintain our productive traditions for conducting action research projects.

Keywords: Engaged scholarship, action research projects, challenges, autoethnography.

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1 Introduction

Scandinavian information systems (IS) research is internationally recognized for its tradition of collaborative practice by combining action research, experiments, and practice studies in close collaboration with practitioners from industry (Mathiassen 2002). Recently, Mathiassen and Nielsen (2008) published an analysis of this tradition in the Scandinavian Journal of Information Systems (SJIS). Mathiassen and Nielsen (2008) discussed collaborative practice research in terms of 'engaged scholarship', a concept from Van de Ven (2007) that addresses the collaborative engagement of academics as well as practitioners. This engagement is characterized as "a relationship that involves negotiation and collaboration between researchers and practitioners in a learning community; such a community jointly produces knowledge that can both advance the scientific enterprise and enlighten a community of practitioners" (Van de Ven 2007, p. 7). They reviewed all articles published in SJIS and described how engaged scholarship in Scandinavia has included a variety of collaborative approaches, with action research being the most dominating. They raise the concern that "there appear to be counter forces through which we might be seriously weakening the privileged status that engaged scholarship has had in Scandinavia so far" (Mathiassen and Nielsen 2008, p. 13). These counter forces include a strong pressure across Scandinavia to comply with international research traditions (especially adopted from US) including publishing in international journals as opposed to for example academic books for practitioners. New academic assessment systems favor a high volume of publications in academic journals. This might repudiate researchers from participating in joint projects with practitioners if this entails risking a lower volume of journal publications as compared to e.g., conducting quantitative studies from surveys or qualitative case studies of 'ex post' (after the event) projects and events.

I share the concern raised by Mathiassen and Nielsen (2008), and in this article I attempt to contribute to a *debate* on collaborative practice research and engaged scholarship within the IS research community. The debate was raised by Mathiassen and Nielsen's article, was followed up at a well attended workshop on action research and at Ola Henfridsson's keynote speech entitled "Action Design Research", both held at the 32nd Information systems research seminar in Scandinavia (IRIS) in August 2009, and will continue being debated at the First Scandinavian Conference on Information Systems (SCIS) to be held in August 2010 under the theme "Engaged Scandinavian IS Research".

The objective of this article is not to explain action research in detail, provide methods for conducting action research, or to review the literature on action research. The *purpose* is to present some of the conditions and challenges that researchers (senior researchers as well as Ph.D.s) face when trying to engage their scholarship by conducting action research projects.

The article and overall argument is structured as follows: First, I characterize action research projects. The notion of action research and design science is introduced, and action research is compared with case studies. Second, I introduce my background and the analytic autoethnografic method used in this article. Third, I present two challenges that I have experienced especially in relation to action research: (1) Action research is a time consuming and risky approach that might be hard to manage; (2) Action research is personally demanding and challeng-

ing. Finally, I discuss different approaches outlining possible ways to manage action research in order to continue to be a preferred research method for engaged IS scholars.

2 Characterizing action research projects

Action research aims at solving practical problems while expanding scientific knowledge (Baskerville and Myers 2004). Action research can be defined as "an iterative process involving researchers and practitioners acting together on a particular cycle of activities, including problem diagnosis, action intervention, and reflective learning" (Avison et al. 1999, p. 94). Action research has been a very popular way of conducting qualitative IS research in Europe (Avison et al. 1999) and particularly in Scandinavia (Mathiassen and Nielsen 2008), where action research often is combined with practice studies and the conduct of interventions and experiments evaluating different types of guidelines, standards, methods, techniques, or tools (Mathiassen 1998; 2002). The relevance of action research has been acknowledged in IS in general (see for example MISQ (2004) and Kock (2007)). Action research has met a recent revival in papers and debates on design science (Hevner et al. 2004; Iivari 2007; Pries-Heje and Baskerville 2008) and "[m] any authors associate design science with action research" (Iivari 2007, p. 53). Compared to design science, action research emphasizes an actively involved and engaged researcher and a mutual commitment from both the researcher and the industry partner (Cole et al. 2005). A discussion on the similarities and differences regarding action research and design science is out of the scope of this article: see SJIS special issue on design science, vol. 19, no. 2, 2007, and the insightful follow up papers by Iivari and Venable (2009) and Järvinen (2009).

Action research may be characterized by comparing to another highly popular qualitative research approach—the case study (Myers 1997). A main characteristic of action research, compared to case studies, is that action research aims at deliberately intervening with the subject of the study. Action research has the same goals as case studies but in addition, action research aims at changing and improving the phenomenon in question. Thus action research can be characterized as uniting three goals: To understand, to support, and to improve: "First, our understanding is based on interpretations of practice. Second, to support practice we simplify and generalize these interpretations and engage in design of normative propositions or artifacts, e.g., guidelines, standards, methods, techniques, and tools. Third, we change and improve practices through different forms of social and technical intervention" (Mathiassen 1998, p. 20).

Action research and case studies represent research strategies that involve empirical inquiries investigating a phenomenon within its real-life context, but they differ in a number of pivotal ways. A case study studies a phenomenon in terms of an instance or event—in IS most often an IT-project or a period of IT use that has ended or which can be studied in parallel as it is carried on. The researcher observes and analyzes the case and focuses on human actions and interpretations surrounding the development and use of IT (Walsham 1995). During a case study the researcher emphasizes studying the case by observing, interviewing, etc. in principle without interfering the domain. Case studies are included by Van de Ven (2007) as a 'weak' kind of engaged scholarship having a detached and external perspective and an aim focusing on describing and explaining the case studied. Case studies might include participant observation

but, as observed by Bygstad and Munkvold (2007), case studies seldom report on the interaction with practice in the analysis and interpretation stage. Thus, most case studies contribute to the aim of engaged scholarship – facilitating a learning community between researchers and practitioners—solely by providing the result of the study as a concluding presentation informing the involved practitioners and by subsequent research publications. Contrary to the case study approach, action research entails that the researcher openly and up front accepts responsibility for specific activities during the project: The researcher deliberately collaborates and interferes with the domain. The aim of action research is not only to analyze, understand, and interpret (as in the case study), but also to improve and solve problems relevant to practice.

While case studies enrich a 'looking-from-the-side' viewpoint of IS, they do not provide the researcher with the insights and experiences of actually 'being-in-the' IS situation. Action research provides first-hand experiences that are pivotal in order to develop models, methods, and normative guidance that are relevant and operational in practice. In other words, action research develops theory-in-practice based knowledge that is truly usable for IS practitioners. In action research projects the engaged researcher undertakes a responsibility for managing some or all activities during the project. This is a central characteristic of action research which is absent in case studies. Case studies analyze projects ex post or during a project as longitudinal case studies, using methods like questionnaires (with surveys representing studies only based on questionnaires and quantitative analyses), interviews, and/or observations—but without taking an active part in the activities forming the project.

The researcher's proactive approach in action research projects requires project management skills, includes a project management role, and a personal interest in—and commitment to—the projects course and outcome. It is this personal responsibility in fostering and making the empirical data which entails the challenges presented in this article. Below I present a frame that describes the continuum of responsibilities that the researcher undertakes and give examples from some of my own action research projects.

3 Background and method

This article comprises an analytic autoethnography providing a reflexive account of my own experiences as situated within the community of engaged scholars. An analytic autoethnography is constituted by five key features as described by Anderson (2006). First, the researcher must be a full member in the research community in question as well as being visible as such a member in the researcher's published texts. Second, it includes analytic reflexivity that "expresses researchers' awareness of their necessary connection to the research situation and hence their effects upon it" (Davies 1999, p. 7). The reflective account "entails self-conscious introspection guided by a desire to better understand both self and others through examining one's actions and perceptions in reference to and dialogue with those of others" (Anderson 2006, p. 382). Third, it implies a narrative visibility of the researcher's self, where "their ethnographic data are situated within their personal experience and sense making" (Atkinson et al. 2003, p. 62). In the following sections I communicate my experiences by means of six vignettes or small 'scenes' that describe situations exemplifying the challenges. The vignettes represent my personal experi-

ences as I recall these situations (from various current and previous action research projects) at the time of writing this article. Fourth, an analytic autoethnography should contain a dialogue with informants beyond the self in terms of "interrelationships between researcher and other to inform and change social knowledge" (Davies 1999, p. 184). This is done by the debate form of this article commenting on the analysis presented by Mathiassen and Nielsen (2008), and by presenting different approaches for engaged IS scholars in the final discussion. Fifth, an autoethnography is not simply a documentation of personal experience but comprises a commitment to an analytic research agendum focused on improving theoretical understandings of a broader social phenomenon. To initiate this purpose I present below a frame outlining a continuum of different levels of responsibility for project activities that the action researcher must undertake. This frame is then exemplified by describing four of my own previous action research projects.

My experiences include conducting action research since 1991: Almost all my research is action research based on and includes 18 projects conducted in collaboration with a total of 13 different Danish and international organizations. I give examples of some of these projects in the following.

My research comprises action research within the Scandinavian systems development research tradition emphasizing method development for IS practitioners (a similar research interest is known from e.g., Andersen et al. 1990; Mathiassen 1998; Dittrich et al. 2008). I have (in participation with research colleagues—in the following referred to as 'we') conducted empirically based research with participatory design focusing on how IS practitioners can cooperate with users and their management especially relating to the clarification of goals, formulation of needs, and design and evaluation of coherent visions for change (Kensing et al. 1998a; Bødker et al. 2002; 2004; Simonsen 2007; Simonsen and Hertzum 2008). My action research has been in close collaboration with practitioners from industry and included ethnographically informed practice studies and experiments (Simonsen and Kensing 1997; Simonsen 2009).

The role of the engaged researcher in action research projects might span from being in charge of the overall project as such (e.g., as the project manager), to being responsible for only a specific and minor part of the project activities (e.g., by conducting autonomous activities without being involved in project management). As a frame to present this special characteristic for action research projects, I refer to Figure 1 and present some examples on this span of different roles from my own action research projects.

In a research program developing a participatory design method, three action research projects were conducted in the *Danish Film Institute* (Simonsen 1994). The aim was to develop and experiment with different techniques and representation tools including ethnographically inspired techniques (Simonsen and Kensing 1997). The organization agreed to participate in the proposed experiments and in return the projects resulted in IT-design that was later procured and implemented by the organization and different vendors. The action research projects had the form of experimental participatory design projects. We undertook the role as project manager and were in charge of all activities. Thus we had complete control on which techniques and representation tools to use and how to experiment with them. As researchers we also took on the role as the IT-designers in charge of the design project (Bødker et al. 2004). The organization's management and staff acted as the users participating on our request – a situation which also characterizes other Scandinavian pioneering action research projects such as for example the Florence project (Bjerknes and Bratteteig 1988) and the UTOPIA project (Ehn 1988).

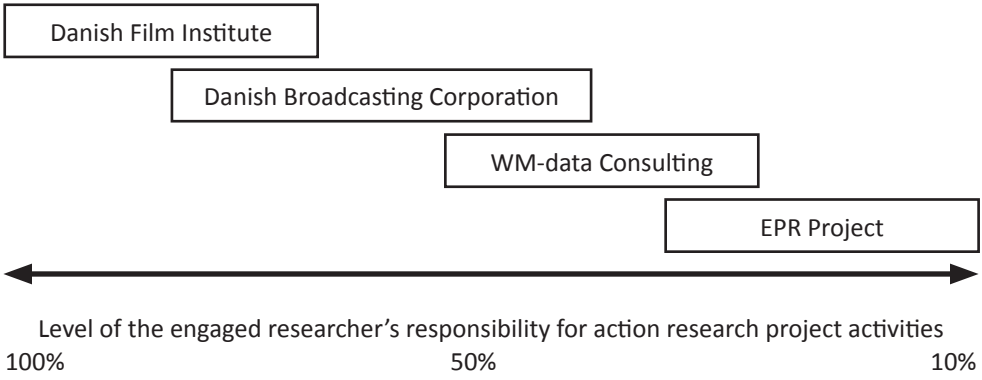

Figure 1: Four action research projects with the researcher having different levels of responsibility for the project activities

Some years later I conducted another large action research project also in form of a design project. At this time the research had resulted in a framework for a coherent participatory design method that we wanted to be tested and evaluated in a large industrial setting. The project was carried out in the *Danish Broadcasting Corporation* (DR) with the aim of designing IT-support for digital radio production (Kensing et al. 1998b). In this project we also had the role as project managers, but the project group was in addition staffed with IT-designers and journalists from DR. We trained the DR staff in using the method and we jointly carried out all the project activities.

The action research project in DR convinced us that the method was useful—at least when we, as researchers, were in charge of using the method and conducting the design project. During the following years we conducted action research projects where we taught professional IT-designers our method in order to evaluate the method when the IT-designers used it in commercial IT-projects, where we as researchers were not in charge of the project (Bødker et al. 2002). In one of these projects I taught the method to senior IT-designers at *WM-data Consulting*. They then used the method in an IT-design project for one of their customers (Simonsen 2007). My role in the actual project was to supervise the designers (in between the meetings with the customer), and to participate as an observer (during customer meetings). In this way we shared the responsibility for the action research project while WM-data was in charge of the IT-project confronting the customer.

In some of my recent action research projects, the responsibility of the project has been even more divided. In a project experimenting with *electronic patient records (EPR)* at a hospital, the project activities were organized to four stakeholder groups (Simonsen and Hertzum 2008): (1) the vendor was in charge of developing, implementing, and testing the EPR system; (2) the hospital's EPR unit defined the needs and desired outcomes from using the system; (3) the clinical department (an acute stroke unit) constituted the test site and the clinicians used the EPR system during the experiment; (4) we, as researchers, participated in the steering committee, facilitated the collaboration, participated in developing and refining the participatory design

approach, investigated its initial use, and were responsible for evaluating the experiment. In this project the responsibility for the overall project was highly distributed leaving an exclusive responsibility to the researcher in terms of the evaluation of the use of the IT-system during the experiment.

4 Action research is time-consuming and risky

A prerequisite for doing a case study is that there actually exists a case to study. The case might for example be a project that has ended, and where the case study involves interviews with the participants of the project. In other words: If you find an interesting case you are ready to start your case study. The situation is very different with regard to action research. You are part of the action research project—it usually does not exist "out there" as an interesting empirical 'site' ready to study. An action research project must be initiated, established, and carried out before you have the empirical data for your research. This is both a time-consuming and a risky process.

Initiating a case study requires access to the empirical data, including that the involved organization and the relevant actors accept your study, allow you to make interviews, questionnaires, document analyses, etc., and allocate the resources needed for your study (contact person, that actors set aside time for your interviews, etc.). This is also required for action research projects, but in addition to this, the project itself must be established. The collaborating partners must, as a start, agree to your research ideas and agenda for the action research project. In other words, you must be able to "sell" your research ideas and goals and convince your partners that it is so interesting and relevant that they agree not only to be interviewed (as in a case study) but to actually invest considerable resources into a project in order to investigate and experiment with these research ideas. The amount of resources can easily be tenfold the amount required for a case study. Especially the decision to prioritize and actually allocate the needed resources for the action research project can be a hard and time-consuming process.

> P*ersonal experience vignette 1:* "Through some of my close friends I got a contact to a large bank where we were interested in conducting experiments in order to improve coordination and knowledge sharing by means of their intranet and groupware applications. First, we agreed to make an evaluation of their current use of the intranet (by means of interviews) and this resulted in a (case-study) report. Then, our contact person referred us to a new initiative (a large project) where they were interested in using intranet/groupware. Throughout three months we had meetings and presented project proposals while the project was getting staffed, managers appointed, etc. After having agreed on the third version of our action research proposal, the project was suddenly given a higher and more urgent priority (by corporate management). Subsequently, our action research project was refused due to the sudden panic, where they got stressed even before the project was really up and going (the learning process were dropped due to their prioritizing of timely product completion). At the same time the bank was facing red numbers on the financial fiscal report. This led to the consequence that it became impossible to engage

in new projects—we were told. More than 6 months after we initiated what we planned should be an action research project, we had to give up!"

In my experience, the establishment of an action research project in average takes no less than 6 months—and sometimes hard efforts invested in establishing an action research project do not result in a project anyway (as the bank example given in vignette 1 illustrates). In the WM-data Consulting project (indicated in Figure 1), the action research project had to involve an overseas customer and the process of finding the 'right' customer for the action research project lasted almost two years.

Once the action research project is established you have to spend much resources in conducting the activities that you are responsible for. Of course, this effort is dependant on how many activities you are responsible for (referring to Figure 1). If it is "your" project (i.e. you have proposed the project and the organization has accepted), it imposes a great deal of project management activities on you. This obviously requires that the researcher has a flair and competence for project management. Project management activities are very time consuming (Andersen et al. 1990). It might be fun and constructive and it will without any doubt provide you with relevant management experiences—but the time invested in such experiences is to a less extent useful with regards to your academic career and in terms of publication requirements.

One of the obvious benefits of action research is the possibility to conduct projects that deliberately pursue your own research agenda's ideas and hypotheses. It might, however, be difficult to control the research agenda since research and development projects by nature are unpredictable, but also because you are dependent on your industry collaboration partners. Two Ph.D.'s in a research program that I am currently involved in learned this "the hard way".

Personal experience vignette 2: "A large EPR vendor and a healthcare region agreed to collaborate on a research project with the aim of measuring and evaluating the effects of using the vendor's healthcare IT products. They financed two Ph.D.'s for this purpose. The Ph.D.'s started by initiating an action research project where the vendor was to develop and implement a (relatively small) IT solution to be used in three different wards in three hospitals. The system was designed, developed, implemented, and taken into use in the first ward, but after a few days the clinicians reported that the system functioned in ways that might compromise patient safety. During several months these problems were discussed and resulted in termination of the project: The vendor did not want to spend the required resources on the system, as they could not see a substantial sales potential in the solution – and it was considered to be too costly to invest the needed resources in what was considered just a minor research project. At this time one year had passed for the Ph.D. students. One of the Ph.D. students dropped the action research approach and turned to the safer choice of conducting a case study, which involved a questionnaire analyzing how clinicians used a commercial system that had been implemented in the hospitals some years before. The other Ph.D. student (an 'industrial Ph.D.' who is required to do the Ph.D. in collaboration with the vendor) started up a new action research project with another customer. In this project the vendor also under-prioritized the needed resources, and the Ph.D. student had to compensate by spending a lot of time doing project management and configuring and implementing the system. Again the customer was not satisfied with the solution, and using the system (which was re-

quired in order to make the effects measurement for the research) was postponed. The healthcare sector in Denmark (where the project took place) subsequently went on strike (due to salary dissatisfaction) which delayed the project for an additional 6 months. More than two years into this study the system was still not in use and the Ph.D. student had to re-think the entire Ph.D. proposal in order to finish the Ph.D. within the time required for the project."

5 Action research is personally demanding and challenging

By definition you are involved and engaged in an action research project: You are an active participant; you have a role in the project; you have responsibility; and you are committed to certain activities and results. This is in contrast to most case studies (studying ex post projects as opposed to longitudinal case studies), where you typically investigate after-the-fact events, e.g., by interviewing participants having done a project already. In an action research project you have an active role and participate in the project as it unfolds and while the project activities actually happen: A main part of the project is 'your' project. Your role can span from being in complete charge of the project—as project owner and manager—to being responsible for portions of the project, like for example, the specific evaluations within the project.

What does it entail that you are actually *part* of the project itself? It means that you are personally responsible for achieving an outcome of the project that successfully can satisfy your research ambitions. In contrast to case studies you have a vital ownership and a definite stake in the project. This include:

- Your interest in the project, its process, and its outcome;
- Your effort to obtain your interest through your role and influence;
- Your commitment to the project and responsibility for seeing that certain parts of it are conducted with success.

When the action research project is initiated by the researcher, he/she often assumes a great interest in the project—taking on the formal or the actual responsibility as project manager. In such case, the action research project can be compared with the researcher's little "baby" that carefully is nursed and protected.

Personal experience vignette 3: "I carefully prepared my introduction to the research goals of the project for the kick-off workshop. During the days before the workshop I was quite absent mentally when doing other daily matters and could hardly think of anything else than my introduction. I felt enthusiastic and excited: It meant a great deal to me that the participants would understand and fully accept my research proposals. The night before the workshop I had difficulties falling asleep as I constantly was having a dialogue in my head going through and arguing for my ideas."

Being part of the project and having a direct influence on its direction and intended results is very satisfying indeed and might make you feel proud and even somewhat euphoric! But depending on your level of engagement, it also imposes personal challenges. It may be difficult to let go of the project when you come home from "work". Concerns with the project might be hard to avoid as you share the responsibility for ensuring project progress and finally success.

> *Personal experience vignette 4:* "Once again days had passed without any notice from them. I had to do something to keep things running…."

Some of the pioneering action research projects in Scandinavia (including the NJMF-, DEMOS-, UTOPIA-, and the Florence-projects), known as the 'critical school' (Bansler 1989), undertook a conflict perspective arguing that the researcher must choose a side (either management's or the labor union's side). Today, most action research projects are initiated in a spirit of consensus by the initial project participants, but different stakes and interests in the project remain. During the project it is often necessary to "re-sell" your research ideas and goals to new involved or affected stakeholders. As an action research project evolves results might threaten certain stakeholders, and the researcher must face conflicting situations which he/she are a part of.

> *Personal experience vignette 5:* "The action research project included that we designed IT support for the production manager and for the editors of the department. From the beginning, it was voiced that "everybody should be able to see all information in the system." After we had observed the editors for some time, they became confidential with us and suddenly—at a follow up interview—one of them entrusted in us that there was a (legitimate but manifest) conflict between the production manager and the editors: Complete openness of all information in the system would favor the production manager and weaken the editors influence in the organization. We had to carefully contemplate bringing this issue up without taking part in the conflict. We decided to present two alternative design proposals: One implicitly in favor of the production manager and one explicitly supporting the editors, who had confided in us. At a steering committee meeting the proposal supporting the editors was chosen—but not without controversies. Indeed, at one point, it led the production manager to suggest to the president of the organization that our detailed analysis of their work should be brought to an end."

Handling problems, adversity, and conflicts can be very challenging, and it may also be experienced as threatening your own personal ideas and interests. Practitioners and organizations collaborating in action research projects might not be very familiar or experienced with participating in projects that include a research agenda.

> *Personal experience vignette 6:* "The meeting really did not go as I had expected. I had prepared a presentation of the study so far, focusing on the prospects and challenges of agile processes. But the managers present at the meeting kept coming back to this issue of how to make a contract ensuring that the vendor could make a sufficient profit without giving detailed descriptions of what the final system would look like. "We cannot sell rubber bands in meters", as one manager repeated twice during the meeting. This contract issue was not intended to be part of the action research project so far. Why can't

> they view this as a research collaboration, as a learning experience, and not as a usual commercial 'product' to be sold to an ordinary customer? I was angry and could not get this meeting out of my mind for days. More than a year had gone since we began our collaboration and still they often revealed an astounding lack of comprehension of engaging in a research project aimed at learning. Behind my irritation was also an insidious fear that the critique was actually appropriate in the sense that the agile approach I advocated was too academic and not aligned with reality. This threatened a core issue in my research idea …. Why didn't they just behave! My anger and frustration did not diminish until I had developed an idea for a special-case contract that could satisfy their needs without compromising my interests for conducting a research project."

Personally challenging situations are unavoidable in action research projects. And being able to handle them is a matter of both personal integrity and personal qualities that are not part of the university curriculum, and are rarely well supported by your work environment. It is a matter of being able to handle tasks involved in action research projects while also working for yourself and with yourself. It might sound easy—but it is not. On the contrary, this requires a personal competence and maturity that few people master to a level of personal satisfaction. Personally challenging situations can provoke feelings of not having success, of being wrongfully opposed, of losing own accountability or (even more extreme) a sense of guilt—that you are responsible. Your emotions might span from feeling anger, to great frustration, regret, and—as an utmost consequence—a sense of not being a successful researcher (in your own eyes).

6 Discussion

Action research enables you, as a researcher, to be a 'part of the game' and not only remain an observer of IS practices. Action research entails making projects in close collaboration with industry practitioners. This can enhance valuable networks with practitioners, develop relevant insights, first-hand experiences, and competencies regarding IS management and practice. Such knowledge is not fostered without having the researcher face two challenges that are inherent for action research. (1) Action research is both time-consuming and risky. Establishing and managing action research projects is very resource demanding and there is a considerable risk for the action research project failing (for example by never really getting established) or ending, following an endeavor not suitable for obtaining the original research goals. (2) Action research is personally demanding and challenging, demands your interest, betrothal, and responsibility for the project. Dilatory progress, problems, conflicts, or adversities trigger feelings of frustration, anger, regret, and might lead to a sense of guilt and incapability.

The Scandinavian tradition of engaged scholarship is facing counter forces that threaten its privileged status. These counter forces include a politically initiated pressure for prioritizing publications in compliance with traditional research publication channels. Investing a substantial amount of time in collaborating with industry partners and communicating results specifically to practitioners does not contribute efficiently to maintaining a high publication volume in academic journals. This is noted by Mathiassen and Nielsen (2008, p. 13): "If we continue to de-emphasize academic books for practitioners, engaged scholarship will undoubtedly suf-

fer". The need for strengthening our publication practice is evident, as documented by Lyytinen et al. (2007): The European publication record in esteemed IS journals is disappointing when compared to US and Asia. As reasons for this Lyytinen et al. (2007) point to a general lack of appreciation for the article genre, inadequate Ph.D. preparation for article publishing, and the institutional shaping of research funding. In Scandinavia, a change is made regarding the latter mentioned research funding: National research production measurement systems are implemented that to a great extent impact research funding. But, this also fosters the publication trend noted by Mathiassen and Nielsen (2008) aligned with anglophone research standards, and inducing implications for the assessment of academic degrees, tenure practices, promotion, and recruitment of faculty positions.

Young researchers striving for an academic career are instantly affected. For Ph.D. students this pressure is combined with increasing demands of completing the Ph.D. within 3 years, which inspires ambitious students to pursue research methods that efficiently can yield a high volume of research publications. The 'strategic' choice for a Ph.D. student favors studies of 'after-the-fact' projects in order to avoid the risk of being dependent on ongoing projects and enable a quick and relatively predictable access to empirical data. This include studies conducted by means of questionnaire-based surveys and interview-based ex post case studies at the expense interview- and observation-based longitudinal case studies of ongoing projects and action research. This would—however—also add to the current concerns for the future of Scandinavian collaborative research practice.

In table 1 the challenges as described in the six vignettes are summarized and related to the continuum of responsibility for project activities. The first four columns in Table 1 represent action research projects with the researcher undertaking different levels of responsibilities (100%, 75%, 50%, 25% respectively) for the project activities (as indicated in Figure 1 discussed in section 3). Increasing the level of responsibility leads to an increased risk of experiencing the potential challenges exemplified by the six vignettes. If the researcher takes the role as project manager and is in charge of all project activities (100% responsibility of the action research project) this will impose the following: Spending a substantial resource in managing a project that might even not getting established after all (vignette 1); a high dependency on other participants that may not be equally committed to the research agenda (vignette 2); being alone in the struggle of explicating, orchestrating, and nursing the aim and substance of the project and its activities (vignette 3) as well as being worried and concerned with its progress and success (vignette 4); a sole responsibility for handling and managing the conflicts that might arise (vignette 5); and the possibility of experiencing various emotions like frustration, fear, and anger when the project does not unfold as you doggedly strive for. The three columns on the right side of Table 1 represent—for comparison—alternative research strategies (the case study and the survey) with a non-existing or a low level of engagement in the project(s) that are studied: Most risks are not apparent/applicable when conducting questionnaire based surveys, and risks are low when conducting case studies of ex post projects.

How can the IS community continue to emphasize and promote engaged scholarship? How do we provide especially new researchers with a confidence for engaged scholarship and action research that can match the 'safer choice' of conducting quantitative surveys and descriptive case-based research of ex post projects?

Mathiassen and Nielsen (2008, p. 14) stress the need to "emphasize the relevance of our research for professional practice without abandoning the rigor of our research approaches" while maintaining to publish results also aimed for "other stakeholders (practitioners, users, clients, managers, customers, and politicians)". This is a call for all engaged scholars in the IS community to mobilize, address these trends, and exchange our experiences for how to promote engaged scholarship in general and action research projects in specific.

Challenges as exemplified in vignettes	*AR 100% resp.*	*AR 75% resp.*	*AR 50% resp.*	*AR 25% resp*	*Case study longi-tud.*	*Case study ex post*	*Survey*
Timeconsuming project management (vignette 1)	High	High	Medium	Low	-	-	-
Loosing control of re-search agenda (vignette 2)	High	Medium	Medium	Medium	Medium	Low	-
Need for nursing (vignette 3)	High	High	Medium	Low	Medium	Low	-
Concerns with progress & success (vignette 4)	High	High	Medium	Low	Low	-	-
Facing conflicting situations (vignette 5)	High	High	Medium	Low	Low	Low	-
Fearful of not being successful (vignette 6)	High	High	Medium	Low	Low	Low	Low

Table 1: Risk levels of the challenges experienced, as exemplified in vignettes 1-6, when engaging in action research (AR) projects, where the researcher undertakes different levels of responsibility for the project activities as compared to (right side of table) the case study and the survey. Action research projects with 100%-25% of responsibility are exemplified by the four projects outlined in Figure 1 and described in section 3: The Danish Film Institute, The Danish Broadcasting Corporation, WM-data Consulting, and the EPR project.

The challenges for action research described in this article are not new, but they are certainly enforced by the publication trend. The efforts that action research projects call for are voluminous and—unintentionally—to a less extent appreciated in the current academic publication reward system. We should not silently ignore this but use our influence to support and promote publication channels aiming at communicating more directly with practitioners.

The initiation of an action research project must be accompanied by a publication strategy that includes papers to be written early on in the project: Such papers should "explicitly state what type of engaged scholarship [is pursued and how this] translates into a detailed research design that facilitates subsequent evaluation of research contributions" (Mathiassen and Nielsen 2008, p. 14).

Much of the prior Scandinavian engaged scholarship has been documented mainly through books (Iivari and Lyytinen 1998; Mathiassen and Nielsen 2008). We might consider whether books and comprehensive dissertations represent the most suitable way of communicating our experiences and results. An alternative is to break up reporting from the project in small focused bits fitted to research papers that also target practitioners. A paper-based form of communicating results might be in many cases easier for other researchers and practitioners to attain and read.

The risks of an action research project not pursuing the planned path leading to the empirical goals originally strived for, must be secured for example by having alternative plans to follow ('plan B') and by carefully considering the relevance of emerging and unanticipated events and results. All empirical experiences are potentially relevant—not only the planned for and successful ones. A community of engaged scholars also need to discuss unpredicted outcomes, failures, and the frustrations that we experience (see for example Rönkkö et al. 2004; 2008).

We also need to re-think our way of conducting action research projects including the way Ph.D. students are involved in such projects. Ph.D. students' involvement in action research projects should not be left to their own devices. Ph.D.-supervisors and fellow senior researchers should reduce the challenges for Ph.D. students by providing Ph.D. students with a role in joint action research projects that favor focusing on their research. Senior researchers ought to take on the task of establishing and managing main parts of the action research projects, and maintain a central position within long term relationships and research cooperation with industry, in order to provide appropriate conditions for their Ph.D. students. With reference to Figure 1, this means facilitating that the Ph.D. student gets a role on the right side of the responsibility-continuum, as in the example with the EPR project where we, as researchers, had reduced our exclusive responsibilities to evaluating the experiment (in Table 1 indicated in the column with action research with 25% responsibility). The Ph.D. student may be assigned the responsibility only for such specific parts of the action research project with direct relevance for the Ph.D. project, e.g., introducing and evaluating (in a broader project context) a specific technique, technology, or the like.

Having the supervisor co-participate in the action research project also allows for better means to identify, handle, and remedy personally challenging problems and conflicts. It is unavoidable that action research researchers face such demanding situations. Unfortunately, we are rarely able to act upon them. We need to start learning to articulate and address also this part of the required integrity, competence, and professionalism, in order to master engaged scholarship.

Engaged scholarship and the Scandinavian tradition for conducting action research projects in close collaboration with industry is too important to be challenged by new trends in research measurements systems: It calls for a responsive and proper dispute. Several potential actions and approaches are listed above. I encourage the IS community to consider their initiatives,

strategies, and experiences to be taken up and contested by others in our further discussions of engaged scholarship.

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