Accessing the world of doctors and their computers

'Making available' objects of study and the research site through ethnographic engagement

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Abstract

This paper reconsiders the issue of access to a field of study as a problem that fieldworkers have to solve *before* they start data generation. Access problems, instead of being seen as a troublesome period for the fieldworker, are turned into an issue of constructing the research site and an object of study. By means of example from fieldwork carried out in two general practices, this paper argues that gaining access must be seen as a process of negotiation in which researchers deal with resistances made by the object of study. Drawing on recent insights from the fields of Social Anthropology and Studies of Science and Technology (STS) the paper agues that negotiations for access form one way in which the researcher and an object of study – in this case general practitioners and their electronic patient records - are 'made available' to each other. Fieldwork methods are apt as entry point for 'making available' an object of study, because they allow for negotiations in the field that enable the researcher to change pre-set ideas and research questions.

Key words:

Electronic patient record (EPR), general practice, access, ethnographic fieldwork, resistance, Science and Technology Studies

Introduction

Ethnography in various forms is known and commonly used by information systems researchers. A practice perspective, like the one a fieldworker can obtain during ethnographic fieldwork, it has been argued, helps surface users' assumptions about the information systems they work with, and as a result can be used to inform information systems design (Blomberg, Giacomi et al. 1993; Button and Harper 1993; Luff, Hindmarsh et al. 2000). Fieldwork thus continues to be popular within IS research because it is seen as reaching the parts other methods cannot reach, e.g. users' point of view and the undertaking of invisible work. However, what ethnographic fieldwork can contribute remains under-explored within IS research (Forsythe 1999; Finken 2000; Bossen 2002). In this paper we would like to suggest new conceptual ground for thinking about fieldwork as more than an 'off-the-shelf' tool-kit. To do so we address issues of the relation between method and theoretical underpinnings and of the position of the fieldworker, who studies information systems in practice. We argue that fieldwork is useful, *not because it brings the researcher closer to the 'reality' of the object(s) of study, but because it allows for forms of empirical and analytical engagement, which may provide insights about the effects - intended and unintended - of the use of information technology.*

One of the issues relevant to (IS) researchers who conduct fieldwork is the issue of access. Access is generally considered a practical problem, which must be overcome by the fieldworker. How a fieldworker gains access to his/her site of study, however, has implications for data generation and is not merely about being physically present. Social anthropologists have dealt with this issue, arguing that access to the field and data generation happens in parallel. To them the field site does not exist prior to the fieldworker's engagement with it. Instead they talk about a co-construction of the field site by fieldworker, his/her informants and the (historical) conditions under which the research takes place (Gupta and Ferguson 1997). They see the field site as an analytical abstraction, rather than as a physical space that researchers can enter and leave (Marcus 1999).

The following paper is inspired by the anthropological approach to the field as constructed along with the object of study, as well as by recent insights from scholars within Science and Technology Studies (STS) (Gomart forthcoming; Latour forthcoming). We describe how, in our fieldwork, the field of study and the object came into being through resistances we met and how the fieldworker's perspective and questions changed during this process.

The paper is structured around two analogies based on notes from fieldwork. The fieldwork was carried out in the context of a research project on the use of an electronic patient record (EPR) by general practitioners (GP)[i]. The analogies demonstrate why fieldwork methods are apt for studying IT-use in practice as each in its own way highlights how GP work and the relationship to the patient is transformed as a consequence of using an EPR. In the first analogy we show how, like the GP must actively create structure in the EPR to make it work, the fieldworker needs to build a framework for generating her field data. Neither the categories in the EPR nor the framework is given, but emerge from existing insights and inscriptions. The second analogy demonstrates how - through negotiations around a research contract - the fieldworker obtains a perspective that allows her to make particular observations in the clinic. We discuss how issues of confidentiality and sharing data is 'foregrounded' during observations, and argue that to create new insights various actors need to 'get into shape'. In this section we see how GPs need to constantly balance their wish to protect patient information with other parties' requests to access and use this information, and how this is a process that is difficult to control. At the same time the 'openness' surrounding the EPR is sometimes used by GPs during consultations to make the patient 'appear' to them.

The analogies we use, firstly, function as a gateway to a discussion on fieldwork methods. Secondly, they bring out new insights about some (intended and unintended) consequences of using an EPR. The first analogy about structure and the EPR, thus, simultaneously provides an example of how we as researchers construct our site of study during the practice of doing fieldwork. When starting our fieldwork

we had assumptions about what would constitute our research site, but as it were, these assumptions underwent changes and the site was constructed anew. The second analogy shows how, not only the field site, but also the object of study comes into being through mutual engagement between research object and fieldworker. We see how being allowed an entry point from which to generate data not only happens as a result of having written the right letters and talked to the right people. Instead, data generation becomes possible as a consequence of a 'tuning in' process in which the fieldworker and an object of study are 'made available' to each other. We conclude the paper by discussing the conception of scientific research as 'risky', and propose to regard fieldwork as a search for ways of constraining the object of study, which will prove fruitful for new and surprising insights.

Structure 'on the fly'

The doctors in a small general practice, an in-law of one of the authors, needed somebody to stand-in for their receptionist during her vacation. It was in the beginning of a research project, and in spite of the potential dangers inherent in observing work in a different location (the reception) than where the focus of our research question was being performed (the consultation room) we decided to accept the offer. From the receptionist's chair the fieldworker would neither be able to observe the GP's entry of information into and retrieval of it from the EPR, nor would we be able to observe GP-patient interactions directly. However, the position as receptionist would provide ample opportunity to examine the structure and content of the EPR used in this clinic.

When arriving at the clinic the fieldworker assumed that the structure of the EPR would also structure the work of the GP in the sense that it would discipline him/her into making particular data entries. The GP's work with the patient would thus be based on the possibilities and limitations inherent in the EPR as much as on the GP's expertise and experience. In spite of work describing the 'fluid' nature of technology (de Laet and Mol 2000) and how technology gets worked-around (Berg 1997; Berg 1999), we focused on technology as a (manu)script for

medical work (Akrich 1992).

On the basis of these ideas we wanted to 'map out' the structure of an EPR. This description, we imagined, would enable us to analyse how an EPR made possible very specific insights about a patient, and not others. We, in other words, were interested in how EPRs discipline GPs. But it turned out that the fieldworker did not really see the EPR discipline the GP for reasons we will discuss shortly. During the fieldwork she was, however, able to study the GPs 'discipline' or manage the EPR.

For one week, the fieldworker sat in the receptionist's chair and used the GP information system. She answered the telephone and booked appointments on the computerized day plan. She received patients and marked them "arrived", so that the doctors would know who was sitting in the waiting room. She entered lab results into the patient records, and renewed prescriptions for medicine to be authorised later by the doctor. In this work the fieldworker had access to all the patient records. However, she found little opportunity to explore the EPR's categories and functionalities. In-between patients coming, leaving, and requesting advice about their children's measles, or telephones ringing, urine tests, and instruments needing cleaning, she tried to print screens from the EPR and make notes about their sequence. She met all sorts of obstacles; it was, for example, difficult to print screen images, as the printer was set up for printing medicine prescriptions. Also, because there was a window between the waiting room and the receptionist's office and the receptionist thus was the 'public face' of the clinic, it was hard to find moments to make notes. The position as receptionist, in short, did not afford the kind of data the fieldworker had expected.

The GPs had generously suggested that the fieldworker stay in their house during the period of fieldwork. As the clinic and the private premises were located in the same building, the fieldworker not only slept there, she also had lunch and dinner with the doctors. The evenings thus provided ample time for informal discussions, as the doctors were curious to hear the fieldworker's point of view on the new functionalities in the EPR, to which they had recently been introduced by their provider. During these discussions the fieldworker's

research interests and the questions she posed changed and she found it necessary to extend her study site beyond the receptionist area.

Gaining an overview

The EPR with which the GPs in this practice worked, was a recent update called 'The Overview Record' (Aeskulap 7.0). 'The Overview Record' enables GPs to create different kinds of overviews based on data in the information system overall, as well as in parts of it. One kind of overview can be gained on the basis of 'record types' ('consultations/visits', 'phone consultations', 'discharge letters', 'hospital outpatient clinic', 'diagnostic images', 'pregnancy record', 'bookings', 'emergency', 'specialist', 'physiotherapist' etc.). These record types can in turn be combined and turned into 'menus', so that the GP for example can generate a list of all discharge letters received within a specific period of time. Another kind of overview can be gained on the basis of data entries on an individual patient, so that, for example, a list of the patient's medication, or of his/her diagnostic images can be generated.

To find out how the overviews could help them yield new insights about patients, the GPs needed to tinker with the system after work. As it were they would often stumble upon ideas as to how to use the EPR in a more appropriate way during working hours, but would have to wait until they had a quiet moment to further explore such ideas. In the following excerpt from an interview a GP explains about the overviews and reflects upon their usefulness.

GP: "If you press F9 you get a list of all the possible 'records' in one patient's record... 'overview record', 'archive', 'specialists', 'medication', 'lab results' etc. It has been arranged so that the EPR includes letters from the specialist, but you can choose not to use that function if you prefer only to see what you have written yourself. I ought to do that, I think, 'cause it's a bit messy now.

(pause)

In fact I think we need to change it so that information related to the specialists appears separately and not in the 'overview record'. But I need to agree on such changes with my colleague. It really has become a bit messy. But basically, you can set up the record as you like.

It's your own choice. You can make a surgical overview or a medical overview if that's what you want, but I'm not yet sure what the advantage of that would be" (Interview, GP, 07.00).

Linking single data entries to a specific 'record' within an individual patient's record, and in turn linking such 'records' to a larger system of 'record types' and 'menus' enable GPs to gain quicker access to specific parts of the information stored in a patient's EPR. They no longer have to scroll 10 pages to find out whether a patient has had x-rays taken, but can simply enter the record type: diagnostic images and thus confine the information to one or two screens. The 'need' to reduce the amount of information on one screen, or the 'need' for specific overviews, neither are self-evident, nor can they be defined independently of the information already stored in the EPR. Instead, needing a particular overview is grounded in and defined by the historicity of the local EPR. Like Garfinkel, Lynch and Livingston (1981), who studied the 'discovery' of the optical pulsar, argued, a technology emerges and 'takes shape' in the hands of the practitioners on the basis of what is already there. "The strong orderliness of the pulsar 'is in the practitioners' hands', and this orderliness offers itself in elaborating details of attempts, repairs, and discards of locally motivated and locally occassioned modifications on the pulsar's existing material shape" (p. 137). Similarly, can the existing orderliness of the EPR be seen as 'lending itself' to the GP, whereby the need for a particular overview emerges.

A field site comes into being

We saw how, to use an EPR for their work, GPs did much more than just 'fill in' relevant information to the EPR; they also needed to define the structure, which would help them order patient information. As an analogy, the fieldworker also needed to do more than 'fill in' the position of a receptionist to obtain access to the study site. Like the GPs had to define a structure for their EPR the fieldworker realized that she could not start to 'fill in' observations in her notebook until a field site had appeared, yet, the field site slowly came into being as her research questions changed.

The busy days as receptionist 'undid' the fieldworker as fieldworker because of the problems she encountered of generating data while doing receptionist work. Because of these problems, she became attentive to the problems GPs had in generating and structuring data. GPs would, we saw, actively work on the structure of their EPR in their free time. She then became aware that she had to include these activities into her research: just like putting together an EPR based on the bits and pieces available to them was part of GP work, she had to construct her research site using what was available to her. Through the limitations in what she was able to 'see' as fieldworker/receptionist, a different perspective on the relation between GP work and structure in an EPR was made available to her.

One could argue that an important reason why this became possible was that the fieldworker had been invited to stay with the GPs and discuss with them outside of office hours. Otherwise she might not have been able to study how the GPs spent time modifying the structure in the EPR. But the point is not that the 'informal' discussions between GPs and fieldworker provided more interesting material than would 'formal' interviews, or that observing the GP tinker with the EPR after working hours would provide research data of a higher quality than would screen prints made via the receptionist's work station. It was not because what the fieldworker could see from the receptionist's chair was not interesting enough, or because she could not look into the GP's office, that she had to redefine her research site. Rather, the site she had defined prior to fieldwork - the space in and around the receptionist's workstation - yielded new questions and guided her into a different direction, whereby she had to redefine what would count as the research site. This made her attentive to the fact that GPs need to produce an EPR before they can use it.

Within anthropology, generating data and currently constructing one's site of study is no new discussion. It is the anthropologist in the field, the ethnographer, who delimits the site analytically and defines what counts as field material. A recent anthology on fieldwork brings into focus the problems of viewing the existence of the field or study site as a place, awaiting discovery.

"The notion of immersion implies that the "field" which ethnographers enter exists as an independently bounded set of relationships and activities which is autonomous of the fieldwork through which it is discovered. Yet, in a world of infinite interconnections and overlapping contexts, the ethnographic field cannot simply exist, awaiting discovery. It has to be laboriously constructed, prised apart from all the other possibilities for contextualization to which its constituent relationships and connections could also be referred. This process of construction is inescapably shaped by the conceptual, professional, financial and relational opportunities and resources accessible to the ethnographer" (Amit 2000: p. 6).

If one looks from this perspective, which sees the field site as constructed, the ethnographer could still be seen as in control. She makes analytical choices in her selection of what is field material and what is not, and she knows in advance that this has consequences for her analysis. We, however, realized that we were not in control of constructing our field site. Like creating 'overviews' in the EPR would emerge out of on-going activity in and around the consultation room, the fieldworker included the contingencies that she met as receptionist into her research design. The busy work as receptionist and the physical constraints she encountered when not being able to print screens did not 'harm' the study, but allowed the fieldworker to see that constructing a research site must be done simultaneously with producing research data.

Getting in shape

In order to generate data on the part played by an EPR in the consultation room, the fieldworker inquired about the possibility of carrying out observations in a health centre with six GPs. The doctors requested she apply for approval by a local research ethics committee (LREC). The fieldworker had no intention of trying out new drugs on the patients, participating in physical examination or even interviewing them, but wanted to observe the consultation, interview the doctors about it and

study patient records. However, as the application form was designed to account for clinical and not ethnographic research methods, most of the questions did not apply to our study. So the fieldworker filled in the application form, and included in the letter a description of the research project, an invitation from the GP practice, and various recommendation letters.

The committee replied that they would like to see a research protocol that would show what information the fieldworker planned to carry away from the clinic. On the basis of experiences from other fieldwork she, however, did not consider it very useful to use a standard recording sheet during observations. But at the same time she felt that producing such a protocol was necessary if she wanted to gain access to the consultation room; she therefore produced a protocol containing the following categories: 1) the physical position of the computer, the patient and the doctor 2) the main complaints of the patient 3) the screens of the EPR used by the doctor 4) their sequence and 5) the protocols used by the GP.

While the application was being processed we had email contact with the contact person in the clinic in order to arrange some new dates. The email conversation, however, was instrumental to more than changing dates. It was also a way in which the GPs tried to control whether data that could be considered confidential would be taken away from the clinic. In the email conversations it was for example agreed upon that not even anonymised patient records would be taken away from the clinic; all patient records had to be studied *in* the clinic. In practice, however, the fieldworker was put in a room in front of a workstation linked to the clinic's network. This, in principle, allowed full access to all patient records. We interpret this in the following way: the GPs were aware of the risk that allowing a fieldworker in would not provide new insights about their work, but merely 'perform' them as GPs, who would not responsibly protect their patients' confidentiality. So even though an approval from the LREC was crucial in order to formally allow the fieldworker into the clinic, it was for them no guarantee against unforeseen happenings and they engaged in further negotiations. Yet, what 'protecting patient

confidentiality' meant, was still to be defined in the interaction between GPs and fieldworker.

The LREC approved the study and the fieldworker believed the problem of access was solved until she showed the information sheets, which were to be given to patients in the waiting room, to the doctors in the practice. The doctors had some corrections to the wording of the sheets, and the sheets were sent back and forth several times by email with additions or changes of the wording until the fieldworker started doubting whether the GPs were actually interested in participating in the study or not.

The day before the departure of the fieldworker (the practice was located in another city) the fieldworker had received the sheets for what she thought would be the last time. When she arrived in the practice, however, it turned out that one of the doctors had a few additional changes. Finally, the morning she was to start observations, the fieldworker received the printed patient information sheets from one of the staff in the clinic. Apart from the fact that the new sheets were laminated and in colour, the main differences were that "access to patient's electronic records" had been replaced with "view patient's electronic records", and "PhD student" had been replaced with "researcher". The first change from 'access' to 'view' thus carried the message to patients that even though research would take place in the clinic, the actual intervention should be considered harmless. The second change indicated that even though intervention was low, the impact would be high, as the study was not just carried out by a 'student', but by a 'researcher'.

Sharing data

To analyse the negotiation processes described above, we see the request to carry out observations during consultations as entering into a situation, where GPs feel it is being increasingly difficult to safeguard the confidentiality of the patients. At the same time, what 'safe-guarding patient confidentiality' means is contested and open to various definitions.

Doctors are frequently being requested to share data with outside actors; managers of clinical research databases, pharmaceutical companies and other health care providers. But no clear

distinctions can be made as to what can be shared and what should count as confidential under all circumstances. Because our request to study GP-EPR-patient interactions ethnographically was unusual in its kind, it meant that the GPs had to communicate to the fieldworker what according to them could be shared and what not. This created the situation that contrary to other fieldwork periods, where the fieldworker was allowed to study anonymised patient records and carry them away from the clinic, she here could access identifyable patient information if only it was not taken away from the clinic.

While observing a number of patient consultations by different GPs the fieldworker observed how the issue of access to data played a role in the consultation room as well. What would normally happen, when a GP saw a patient was that unless the doctor had seen the patient recently, s/he would retrieve the patient record before the patient entered the consultation room. The doctor would quickly run through the latest changes and additions and then call the patient in. The record would then usually be left 'open' on the screen, and as the doctors in this practice had designed their offices so that patients sat next to them instead of opposite them, the screen would be visible to the patient throughout the consultation. This also implied that if the GP received a phone call from a colleague or a receptionist during a consultation, and needed to retrieve a different patient's record to answer a question, this other patient's record would become visible as well.

The doctors had different experiences of working with an 'open' screen instead of with a paper record, which is not in the same way visible to the patient during a consultation. During consultations the fieldworker would observe how parts of the GP's communication with the patient was to let the patient see the notes on the screen; some GPs for example would enhance the visibility of the screen by reading aloud while typing in the notes, or use the screen to show a graphic to the patient (e.g. of test results that had been taken over a period of time). The point here is that like the fieldworker's experiences in the field are dependent on the negotiations with which she engage prior to and during fieldwork, GPs also

constantly engage in 'negotiations' in the consultation room with the patient and the screen as 'participants'. In both cases the negotiations shape what the fieldworker/GP is able to 'see' about the research site/the patient.

The 'participation' of the open screen in a consultation was an example of the ambiguity of technology and was also experienced as such by GPs. On the one hand it was sometimes blocking the communication that patients could see the GP's notes; on the other hand, what was on the screen could be an occasion for aligning GP and patient expectations and further common 'collaboration'. Yet, what the patient would see or not see was experienced as difficult to control. A GP explained how the legal rule that patients should be able to know what the doctors write about them, for him was a reason to make data entries, which the patient could understand, but he also experienced situations, in which things needed to be recorded, which it was not in the patient's interest to see at that moment, for example psychiatric conditions. The visibility of the screen during consultations would thus put the GP and the patient on a common level of discussion. But it could also be detrimental to fruitful conversation and create confusion and anger. In the following quote a GP gives an example of this as he tells about his daughter's boyfriend, who became very upset when he realized what was on the computer screen.

GP: *"It is interesting the feedback you get... my daughters boyfriend, he got very upset with what was on the computer screen".*

Fieldworker: *"in what way?"*

GP: *"It was the heading, the heading said influenza. Because the heading had been influenza from the start and he hadn't got influenza, he got septicaemia [bacteria in the blood, a very serious condition] and had to spend 3 weeks in hospital on intravenous antibiotics, and when he went back to tell the doctor, up came the screen and what was on it? Influenza. And I suppose, that is why I don't like putting too many definitive diagnoses up on the computer screen, because diagnoses tend to emerge."* (Interview, GP, 02.02).

Interestingly, the GP concludes that rather than making his notes less accessible by hiding the

screen, he would rather make less definitive diagnoses – and keep the open screen. The visibility of the screen thus not only changes the GP-patient interaction by aligning/not aligning them on a common theme of conversation, it also changes the GPs' record keeping.

A different GP had similarly experienced how working with an 'open' screen could frame his interactions with the patient in an unhelpful way. In an interview he tells about one of his patients, who had had a provoked abortion. The patient repeatedly told the GP not to pass this information on to her partner; it was, however, entered into her EPR. Six months later the woman, one more time pregnant, came to see the GP and get a first pregnancy check along with her partner. The GP had noticed that the woman had been quite tense during their conversation and only later he realized that her record, and thus the information the GP had agreed not to disclose, had been visible, and thus shared by the partner, all the time.

During observations in the consultation room the fieldworker also observed how the open screen would make a patient attentive to his/her past conditions. To maintain the sense of 'here-and-now' that would often be necessary for the GP to entangle a patient's current symptoms some doctors would make notes in a paper record or just on a piece of paper and make the EPR mute by letting the medication list be visible on the on the screen. Only letting the medication list be visible would be a way of *preventing* that the EPR would participate in the consultation, as patients would normally know what medication they got and would thus not be surprised by reading what was on the screen. To make the EPR be supportive of the way they preferred to work GPs thus needed to actively manage the (in)visibility of the EPR.

Making a research object appear

We have demonstrated how, in order to become attentive to that which is not immediately obvious in the setting of a consultation, the fieldworker needs to be 'tuned in' on issues at stake in the consultation room. Through negotiations with the GPs and the LREC the fieldworker was allowed to see how GPs deal with the fact that an EPR is easier to 'share' than is a paper record. It turned out that issues of

patient privacy and confidentiality and the EPR had to be approached actively by GPs, not only in relation to the fieldworker as researcher (or other third parties requesting information) but also in the daily work with patients. That these issues are high on the agenda for GPs was not surprising. It was surprising, however, to observe how they informed the way GPs would interact with patients and manage their record keeping.

Above we described troubles of gaining access to a research site. On the basis of that we argue that gaining access is not just a process of finding an 'open door' to interesting field material. Rather, in our case the negotiations brought the research object and the fieldworker into being in very particular ways. We described how we engaged with 'gate-keepers' of the field site up till the point where we believed we would not be allowed into the clinic at all. The process of making a research protocol, engaging in email conversations about exact agreements and negotiating the changes of the patient information sheets, thus was not just a troublesome process before the fieldworker would get to the 'real' data. Instead it was a process that made the research object 'appear' to the fieldworker, in the sense that it later enabled her to make very specific observations in the consultation room with regard to topics of access to data and confidentiality. Without having had to negotiate access in a way that mutually engaged the fieldworker and the GPs, it was likely she would not have seen how confidentiality and working around an open screen is an everyday concern GPs have.

Scholars within STS have described the troubles researchers encounter when doing research as 'resistances' (Despret forthcoming; Latour forthcoming). In a recent paper Despret uses the concept to think about the relation between researcher and the object in a rat experiment. She is interested in the way (nonhuman) objects are turned into objects that are available for research. Despret describes this process as an engagement process in which the researcher and the object constrain each other in such a way that it allows for a change of expectations. 'Resistance' in the context of an experiment is thus not something to be avoided, but should be seen as the *sine qua non* of interesting research.

She argues:

"One of the ways to resist an apparatus is to lead the experimenter to transform his/her questions into new ones that are the good questions to ask to that specific individual. In other words, an apparatus that does not stake on docility is an apparatus that is designed to give the opportunity to the 'subject' of the experiment to show what are the most interesting questions to address to him; what are the questions that make him/her the most articulate" (Despret forthcoming).

'Good' science is thus a science that challenges pre-set assumptions. It is thus *not* when the object of study objects to the assumptions made about it that researchers should worry, but when access to the research site happens smoothly and without any 'counter-questioning' from the subjects/objects studied. In contrast a 'good' scientific set-up aims at maximizing resistance from the ones, who are being studied, because this presents to the researcher an opportunity to learn. Without resistance, or what Latour calls recalcitrance (Latour 2000; Latour forthcoming), the researcher is unable to transform her initial questions, and will merely reproduce well-known insights.

This framework is useful for thinking about the position of the researcher, who studies information systems at work. The 'resistances' presented to the fieldworker by the LREC and the GPs when requiring about doing observations, not only made the object of study 'appear' to the fieldworker in a new way, they also fundamentally changed what she was able to observe. In the process she became a different fieldworker as the field site *constructed* and *performed* her in a way she had not been able to foresee[ii]. Negotiating conditions for access the way we described it above enabled the fieldworker to 'get into shape' for the observations of consultations. The negotiation processes did not bring her 'closer' to the GPs' experiences of using an EPR for their work. Instead, they shaped her perspective so that she was later able to observe the subtle interactions around the (in)visibility of the screen. In that way the negotiations provided a partial perspective productive for new insights about how an EPR would sometimes participate in the GP-patient interaction in unintended ways.

Conclusion

This paper started out with an interest in the issue of access to a field site. To address this issue we used two examples from fieldwork in GP practices and demonstrated the close relation between constructing a research site and engaging with an object of study. To tease out our points about ethnographic fieldwork in IS research and how to study unintended effects of information technology, we used two analogies.

In the first analogy we demonstrated how, to gain access to interesting data about how GPs use an EPR, the fieldworker needs to redefine her ideas of what and where the field site is. We made a comparison between GPs constructing categories in their EPR, and a fieldworker defining a framework for her observations. Based on this we argued that neither GP nor fieldworker would merely 'fill in' a pre-established structure. Instead both had to create one to be able to generate knowledge; the fieldworker to generate insights about GP work, the GP to generate insights about his/her patients. We pointed out that categories and overviews of patient information emerge out of a clinic's day-to-day work. In our example the EPR's structure came into being with close reference to the patient information already contained in the EPR. Like structure emerged out of the existing EPR, the fieldworker constructed the framework for her study on the basis of information available to her from her entry point as receptionist.

With our second analogy we pointed out how an object of study comes into being as a consequence of interactions in the field. We described how the fieldworker became aware of problems related to sharing patient information with third parties and with the patient through engaging in negotiations around obtaining ethical approval. At first, this was seen by the fieldworker as a problem mainly related to requests from outside actors (e.g. researchers), but during observations it turned out that issues of confidentiality were also at play in the consultation with individual patients in very particular ways. This became visible to the fieldworker by observations of interactions around the computer screen. By having already been 'tuned in' on the issue of confidentiality specific types of research data were 'made

available' to the fieldworker, and enabled her to observe how the subtle relation between the patient, the GP and the EPR was performed during a consultation.

In our analysis we found the conception of the field site as 'co-constructed' a useful starting point for thinking about how in our own fieldwork the construction of a research site takes place. To further think about how also the object of study and the fieldworker get constructed 'in action' we found work by science philosophers on the nature of 'the good experiment' and nonhuman agency inspiring. These scholars radically get away with the notion of 'bias', i.e. the belief that researchers can design their studies, so that these studies facilitate a more or less adequate representation of the reality the researcher aims at understanding. What is argued is that as all study designs have embedded assumptions and thus facilitate particular representations of the world, the researcher should experiment with different ways of framing the object of study. By currently challenging one's study design the researcher aims at constraining the object under study in different ways in order to identify the constraints that makes the object surprise the researcher (Gomart 2002; Gomart, forthcoming). What this approach highlights is the problem that researchers all too often make 'discoveries' that support their initial assumptions and which therefore do *not* surprise. To prevent this, researchers can focus on how resistances towards one's study design inform a study positively by actually allowing for changes of the conditions under which it takes place.

Allowing for transformations of the object as well as of the researcher also is to allow for knowledge production to be a "risky business, which has to be started from scratch for any new proposition at hand" (Latour forthcoming). Research is here seen as risky in the sense that there is no 'safe distance', which the researcher can uphold between him/herself and the object of study. There is, with reference to earlier work by Latour, no place outside the 'network' one is studying, for the researcher to remain untransformed (Latour 1987). But research is also risky in the sense that once transformations are allowed for, what the researcher is able to

see changes. As what the fieldworker 'sees with' changes, there is no way in which she can predict or control the findings she will come up with.

By this we hope to have argued why fieldwork should not be seen as a way of getting 'closer' to the practitioner's point of view, but as an opportunity to engage in continuous negotiations and transformations of mutual points of views. 'Being there', in other words, is no guarantee that a researcher will be able to generate a truer representation of practice. Instead the usefulness of fieldwork methods, we argue, lies in the demand they put on fieldworkers to constantly search for new ways of constraining an object of study, in practice and in writing. Doing fieldwork, thus, is useful, not because it allows the fieldworker to be part of a natural set-up, but because it provides an entry point from where engagements with the field can take place in a way that allows for resistances and transformation of perspectives.

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[i] In the following, we actively use field material from two general practices generated by the first author. One of the practices is located in Denmark and one is located in the UK. The argument, however, is supported by data from fieldwork carried out in two clinics in The Netherlands as well. The intention of employing examples from clinics in two different countries, thus, is not to compare or highlight local differences of EPR use. Such differences have been downplayed in order to foreground the issue of fieldwork methods and their relevance for IS research (for comparisons of EPR use see Winthereik (forthcoming).

[ii] See also Mol (1998) for an elaboration of the notion of performance.