"It's more important to be fast than to be informed" - Gender, age, *disability* and ethnicity in relation to IT in the Swedish Rescue Services

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ABSTRACT

This study is work in progress starting with the point of departure that everyday accidents strike unjust, and with the purpose to explore how gender, age, disability and ethnicity are understood, and included – or excluded – in relation to the information systems involved in rescue operations performed. Empirical material was gathered through interviews mainly at the Swedish Rescue Services, and the analysis shows that this kind of information is not included in the involved information systems, and that it is considered rather irrelevant. On the other hand, it is indicated that this information might well be relevant for the performance of rescue operations, discussed in terms of how gender, age, disability and ethnicity are reconfigured in the organization, something that opens up for the design of information systems that are more attentive to these issues, and that might possibly contribute to better supporting those in vulnerable positions.

Keywords

Swedish Rescue Services, IT, gender, age, disability, ethnicity.

INTRODUCTION

International research on gender, race and class related to disasters underscore how "natural" disasters strike differently depending on social and economic patterns such as existing resources to cope with and recover from such events (David and Enarson, 2012). Here the focus is on everyday accidents, but the same argument is relevant also in this context; everyday accidents tend to strike according to certain patterns related to e.g. gender, ethnicity, class, age, disability, and sexual orientation. For instance those exposed to urban intentional fires in Sweden more often live in socio-economic vulnerable sub-areas (Guldåker and Hallin, 2014). An experimental study made in USA showed that disabled persons (blind and persons in wheelchairs) took several times longer than non-disabled persons to complete activities associated with evacuation (e.g. calling the rescue services) (Pearson and Joost, 1983). Statistics show that accidents and injuries related to hate crimes with racist and homophobic motivations increase in Sweden (Brå, 2013). A study on Swedish suicides in 2001-2008 show that men run a nearly 3-fold risk of suicide mortality compared to women, and that factors such as young age, unmarried status and low educational attainment were higher risk factors for men than for women, while any

psychiatric diagnose was a higher risk factor for women than for men (Crump, Sundquist, Sundquist and Winkleby, 2013). In accidents related to domestic violence women are more often than men subject to brutal violence leading to the need of hospital care and other forms of help and support (Brå, 2014).

In the context of information systems for crisis response and management this raises concerns about how these systems, and the wider organizational systems of which they are part, could better support those in vulnerable positions. In this paper we focus on the Swedish Rescue Services, and more specifically on the information systems involved in their rescue operations. It seems reasonable to think that in order to better support those in vulnerable positions in rescue operations, the Rescue Services would be helped by rich information about those involved in incidents. This opens up for questions about how this kind of information is gathered and treated in the organization. Harrison (2015) in her study of a documentation system used by the Swedish Rescue Services, notices that:

> "[a]part from the extent of their injuries, no other information about the victims' bodies is noted. This includes gender, age or any disabilities, which might reasonably be considered to affect the outcome of the incident or the method of recovery used" (ibid., p. 6).

According to Harrison (ibid.) no information about the involved subjects is noted in the incident documentation system, not even the kind of information that might affect the performance and outcome of a rescue operation, indicating that this kind of information is considered unimportant. Harrison (ibid.) relates this to the wider issue of how gender is 'done' in the Rescue Services, and argues for a prevalent general gender 'blindness', that is, unawareness of how gender is constructed, or done, in organizations, for instance in terms of gendered division of work, and gendered hierarchies (Acker, 1990; Kvande, 2003). Harrison (2015) also notices that there seems to be an ignorance of how the use of information technologies might contribute to how gender is done in the Rescue Services (Lie, 2003).

Research Aim and Objectives

In this paper we focus on Harrison's (2015) point of departure that information about those involved in incidents in terms of e.g. gender, age, disability and ethnicity might affect the performance of rescue operations. Hence the purpose with the paper is to explore how this kind of information is understood, and treated in relation to the information systems involved in rescue operations performed by the Swedish Rescue Services Our main interest is whether information about gender, age, disability and ethnicity is considered relevant in this context, if this kind of information is collected and saved or not, and on what grounds.

THEORETICAL FRAMEWORK

The main theoretical approach used in the study is feminist technoscience, in which central arguments are that technology and gender are closely related and always constructed or 'done' in relation to each other, and that both are understood as unstable and constructed in relation to each other. Wajcman (2010) claims that technology in this approach is understood as both

> "a source and a consequence of gender relations… [that] gender relations can be thought of as materialized in technology, and masculinity and femininity in turn acquire their meaning and character through their enrolment and embeddedness in working machines" (ibid., p. 7)

The approach is further based on ideas from several theoretical traditions, one being more 'mainstream' science and technology studies (STS) focusing on how technologies become bearers of social relations, values and norms, and become actors who produce and reproduce (organizational) realities (Latour, 2005). Another theoretical source is feminist research focusing on gender in relation to information technologies (e.g. Lie, 2003, Kelan, 2007, Halford et al, 2010). Here we use a 'doing gender' approach (Gunnarsson, Andersson, Vänje Rosell, Lehto and Salminen-Karlsson, 2003) in order to underscore that gender is not something given or stabilized once and for all, neither biologically nor socially, but rather something that comes into being and is reproduced and reconfigured in everyday practices, and is hence fluid and contingent (Kvande, 2003). In essence this means that gender might have different meanings in different contexts, and that gender might, depending on the structures, norms and everyday practices in specific contexts, be enacted differently in different situations. It also means that gender might in some contexts be downplayed as less important in favor of other dimensions such as professional identity (Halford, Lotherington, Dyb and Obstfelder, 2010). Other researchers have extended this approach to also include class, age and race, or ethnicity (e.g. Zanoni, 2010). Here it is worth noting that being vulnerable is nothing self-evident, but that individuals might become vulnerable depending on the context of which they are part. Hence also vulnerability can be understood as

something that is done, or in a fluid state of becoming. In this context these theoretical ideas are used in order to explore how gender, age, disability and ethnicity comes into being through the design and use of information technologies.

RESEARCH METHODOLOGY

The study was conducted as a case study (Walsham, 1995), the case being the use of information technologies involved in rescue operations performed by the Swedish Rescue Services. However, a call about an incident is first received by SOS Alarm, the Swedish organization that provides the emergency number service (112), and since SOS Alarm uses the same information system to receive and store these calls as the Rescue Services, we also visited a regional SOS Alarm center. Accordingly, the empirical material was primarily collected through individual semi-structured interviews with employees in the Swedish Rescue Services[1], but one interview and participant observations of an operator for about two hours were also conducted at SOS Alarm. In total four interviews were conducted with three different persons, and the interviews lasted from about an hour to almost two hours. The participants were one fire engineer working at one of the Rescue Services stations in the city in question ('fire engineer on station Kilen'), one manager of the regional SOS Alarm center ('manager of SOS Alarm center'), and one manager of a Rescue Services station, a fire engineer who was interviewed twice ('manager on station Grimsta'). The rescue stations have been assigned fictitious names.

The participants were told about the project and our research interests in terms of gender and information technologies, and we posed rather basic questions concerning how it works when someone calls 211 and until the Rescue Service sgoes to the incident site, what happens during and after an incident, how information technologies are used in this process, what kind of information that is collected, and if / how gender, age, disability and ethnicity are in some sense relevant in this process. In terms of analysis the empirical material was first arranged in themes, and then discussed in relation to central ideas from feminist technoscience and STS.

RESULTS AND ANALYSIS

First the organizational context, and the information technologies involved in the Swedish Rescue Services will be presented shortly, and thereafter the analysis, in terms of gender, age, disability and ethnicity in relation to this.

The Swedish Rescue Services is currently in a state of organizational change, including increasing requirements of documentation, related to changes in legislation surrounding firefighting practices. The Swedish Rescue Services is a public organization required to document incidents for several reasons: to make the organization transparent, to document due to legislative requirements, and to enable organizational learning. Also, the manager at the Grimsta station argued, the incidents are no longer as dangerous, making firefighting a less dangerous practice. Additionally firefighters now go to partially different incidents than previously, such as suicides, which are difficult to cope with emotionally, and which they are not always trained to handle. In terms of IT the most pertinent information technologies involved in the Swedish Rescue Services are Zenith, Rakel, and Core. Zenith is the system used by SOS Alarm when someone calls about an incident, and it is also used by the municipal Rescue Services which has access to the same information as SOS Alarm. Zenith includes information about the location of the incident, along with information about the resources sent to the site; firetrucks, ambulances etcetera, and their location. Rakel is the communication system used by the Rescue Services in order to report information back to the Rescue Services station, and this information is stored in Zenith. Once the operation is finished, the task force leader is required to write a report about the operation in Core, an incident documentation system.

We have identified three themes in the empirical material, related to the purpose of the study, and the theoretical framework: (1) gender understood as irrelevant, (2) gender could be relevant, and (3) (absence of gender in) the incident documentation system. These will first be described, and then related to the theoretical framework.

Gender understood as irrelevant: In terms of gender, no information about gender, age, disability or ethnicity is currently collected through the standardized questions in Zenith. Also, it seemed as though no such information is usually collected during a rescue operation. Two participants meant that it is more important to be fast than to be informed about the incident site. The manager and the Grimsta station furthermore argued that firefighters sometimes do not want too much information of the involved subjects previous to arriving to an incident site –

[1] It was the first author who collected the empirical material.

such as gender, age, disability and ethnicity – because this might create anxiety, and hence possibly contribute to a less effective operation.

Gender could be relevant: In a second interview the manager and the Grimsta station argued against his own previous reasoning, and now discussed how gender, age, disability and ethnicity might in fact be relevant in some situations, such as when there is an incident in a kindergarten or when children are involved, in a home for the elderly, if a pregnant woman is involved, or if the incident concerns a home for migrants. He used the term "mental image" and discussed how the mental image that the firefighters have when going to an incident site is central to how they prepare mentally and emotionally. Having a reasonably correct mental image of the situation they are going to, makes them better prepared to deal with the specific situation.

(Absence of gender in) the incident documentation system: Each incident must be documented in Core. According to the manager at the Grimsta station, the documentation system is not popular among the firefighters, even though it is considered central by the Swedish Civil Contingencies Agency (the central national rescue organization). Core is considered "non-flexible", and furthermore, he argued, some of the firefighters are not aware of the legislation surrounding firefighting practices and hence the purpose with the documentation of incidents. Hence what ends up in the system is often only the mandatory information, which includes the following: (1) Fire and rescue services, (2) Incident, (3) Incident scene, (4) Object, (5) Time and date, (6) Decision and resources, (7) Extra resources, (8) Injuries and damage, (9) Cause of incident, (10) Response process, (11) Evaluation, and (12) List of documents (Pilemalm, Andersson & Yousefi Mojir, 2014). It is not required to include information about gender, age, disability and ethnicity, and hence the system does not promote any attention to these issues.

The analysis shows that the central information technologies used in relation to firefighting practices involve Zenith – the system used when alarm calls are received, and information is gathered before and during a rescue operation – Rakel, the communication system, and Core, the documentation system. The participants indicate that these have quite different statuses in different parts of the organization. None of the participants indicate any serious problems with Zenith, but documentation in Core does not seem to be highly valued by firefighters even though it is by the central organization. Gender, age, disability and ethnicity are not included in any of these systems as something to take into regard previous to, or to document after a rescue operation. This absence of gender, age, disability and ethnicity in the information systems and the surrounding practices could be understood in several ways, for instance as indicating that gender etcetera in fact is not important in relation to rescue operations, and that it is in fact better to be fast than to be informed about victims involved in incidents. However, as the manager at the Grimsta station changed his mind in this issue, it cannot be taken for granted that gender is irrelevant in relation to rescue operations.

In terms of how information technologies embody social realities (Latour, 2005) the analysis indicates that the organization seems to be rather unaware about the importance of gender, age, disability and ethnicity in relation to rescue operations. Furthermore, in terms of how information technologies become actors which reproduce and produce realities (Wajcman, 2010), the analysis indicates that the information systems Zenith and Core are based on a rather gender-blind organization, and that they also reproduce these existing gender-blind practices in the organization. Hence the systems contribute to making gender a non-issue in the Rescue Services. The wider implications of this is the risk that the existing information systems and firefighting practices do not take into consideration issues that might contribute to improving the performance of rescue operations. If gender, age, disability and ethnicity might in fact be relevant for the performance of rescue operations, it might be good to be more attentive to these issues and include them in the information systems involved in, and the practices related to, rescue operations, in order to better support those involved in incidents who are in some sense in a vulnerable position. More information in Zenith might open up for more adapted rescue operations, for instance in terms of involving an interpreter, or to include support for disabilities when there is need for this. If information about gender, age, disability and ethnicity was stored in Core this would constitute a knowledge base that could also be used in order to statistically analyze and identify incident patterns. This could lead to new knowledge about currently unknown risk factors, and preventive work based on this. Of course, this would require analyzing and taking into regard the legal and ethical aspects of privacy related to the stored information.

CONCLUSION

The purpose with the paper was to explore how information about gender, age, disability and ethnicity is understood, and treated in relation to the information systems involved in rescue operations performed by the Swedish Rescue Services. Bearing in mind that the study is work in progress, the results nevertheless indicate some preliminary conclusions. One is that the absence of gender, age, disability and ethnicity from the studied

information systems indicate that these systems materialize and reproduce an organizational reality – the Swedish Rescue Services – in which these issues are considered quite irrelevant. However, one of the participants seemed to realize that these issues might in fact be relevant in some rescue operations. This opens up for the possibility that the organizational norms and practices that make gender invisible in the Swedish Rescue Services are disturbed – in terms of 'doing gender', that gender, age, disability and ethnicity are being reconfigured in this organization. If this opens up for a more general awareness of how gender etcetera might be relevant for the performance of rescue operations, it might also open up for the design of information systems that are more attentive to these issues, and that possibly contribute to better supporting those in vulnerable positions.

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