# Article Systems From The User's Perspective

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#### **Abstract**

Surveillance equipment, especially cameras and access-control devices, are increasingly introduced into homes and other private dwellings. Residents use the equipment in their daily lives in places where they are both operators and targets of these systems. Thus far, the concrete practices of these systems' use or the users' feelings towards them have not been investigated. This article sets out to examine the surveillance produced with home surveillance systems and the meanings and implications of that surveillance to the resident.

The data consist of 13 interviews conducted in Finland with people who have installed surveillance systems in their homes. Through qualitative content analysis of the interviews, this article argues that five types of surveillance are produced with these systems. The first two types are comparable to traditional understanding of surveillance motivated by control and care. Besides these two, the equipment is used for recreational and communicational surveillance which are motivated by more playful purposes. The fifth type of surveillance analyzed here is 'sincere' surveillance. Domestic surveillance is sincere in the sense that the residents consider it, along with their motives for conducting it, innocent. The users as overseers wish to separate themselves from voyeurs.

This article offers important insight into the everyday life practices of surveillance and expands our previous understanding of domestic surveillance. The surveillance produced with home surveillance systems needs to be understood more broadly than in mere control-care-setting. The playful and entertaining usages of the systems, however, do not remove the ambiguities of domestic surveillance.

#### Introduction

One day we were sitting there on our sofa talking and looking around, not doing anything special, and suddenly remembered that the camera is there, pointing at us. And we were pondering when is it actually filming, we were trying to remember if it only films us if an alarm is set off or is it filming us right now sitting here or doing something else—we actually weren't a 100 per cent sure.

(Participant 3, woman, age 64, system based on access-control)

Home surveillance systems have become increasingly popular in the last two decades as the prices of surveillance systems have decreased at the same time as the technical quality of cameras and other surveillance technology has improved (see e.g. Ferenbok and Clement 2012). These systems have become commonplace, not only in wealthier neighborhoods but also in middle-income residential areas. The

purpose of so-called 'smart surveillance' systems is not limited to protecting property, as they are advertised with the promise of protecting the family as well (Rapoport 2012: 328).

It is difficult to estimate the exact size of this phenomenon. For instance, in Finland, where the empirical data for this research was gathered, precise statistics on the amount of home surveillance systems currently installed is not available, as many of the companies providing these services do not share customer information. A recent survey estimated that about eight per cent of Finns have some kind of an alarm system in their home (Poliisibarometri 2014). However, the trespassing and break-ins which these systems aim to prevent are rare in low-crime Finland<sup>1</sup> (Official Statistics of Finland A 2014).

While there is a vast amount of research on surveillance cameras in public spaces, the research on privately owned and operated cameras is very limited. Michele Rapoport's research on domestic surveillance (2012) is a noteworthy exception. In her article, *The home under surveillance*, she reflects on the specificity of home as a private space in the context of surveillance. She considers the dweller's role, arguing that a unique surveillance assemblage is formed in the tripartite conjunction of site (home), user (occupant) and technology (home surveillance system) (Rapoport 2012: 331). Her approach, however, is mainly theoretical. Grounded in empirical data, this article offers theoretical analysis of domestic surveillance, particularly the uses of self-monitored cameras. Beginning from the user's perspective, I investigate why surveillance systems are installed at home, how they are used, and what kind of feelings the residents have towards them. The various uses are then formulated into different types of surveillance, all present within current domestic surveillance camera systems.

The issues raised by surveillance cameras in public spaces differ from those raised by privately operated cameras in private spaces. When a surveillance system is installed in one's home, the residents are not mere objects of surveillance but also participants in the surveillance. In recent years, private participation in surveillance and the playful uses of surveillance technologies have been examined, but mainly in the context of online social networking sites, surveillance games on the internet, and emerging surveillance technology (such as automated face recognition systems) (see e.g. Albrechtslund and Dubbeld 2005; Albrechtslund 2008; Andrejevic 2007; Ellerbrok 2010, 2011; McGrath 2004, Mäkinen and Koskela 2014) and not in the context of the home as a site for participation. One of the questions driving these inquiries, elegantly framed by Ariane Ellerbrok (2010: 200), is: "how do we account for the fact that often individuals willingly choose to use those technologies identified as exploitative?" This framing acknowledges the "widespread concern over the risks associated with our continually expanding surveillance systems" and considers in that context the willingness with which people embrace these new technologies (Ellerbrok 2010: 200–201).

In answering this question, the first mistake would be to say that the technology means nothing to the people who use it, or that they do not understand it. This article argues that surveillance in homes is not insignificant or passive to the resident but rather raises concerns which are then mitigated through different ways of regulating exposure to the system. The second mistake in explaining why this technology is used would be to dismiss it either as exploitative or as empowering. Despite the possible concerns people might have in regards to home surveillance systems, the systems are not mere risks or inconveniences to the occupant but "may offer those under observation a sense of confidence and freedom that is a result of their being watched, protected, and secured" (Rapoport 2012: 328). As private camera systems become more common, the main question regarding camera surveillance in general no longer is only about public response to it in public places. With the growth of home surveillance systems, the private reasons and experiences of surveillance in private places must be investigated as well. This

<sup>&</sup>lt;sup>1</sup> For example, in 2013, while the national population was 5,451,270, there were only 5,749 offences against property through unlawful breaking into a residence and 1791 offences through unlawful breaking into a summer house, secondary residence, etc. (Official Statistics of Finland A 2014).

research examines the meanings of these systems to the residents and the type of surveillance produced through them.

### Methodology

This paper is based on thirteen exploratory interviews conducted in Finland in 2014 with people who have installed surveillance systems in their homes or, in two cases, their secondary places of residence (country houses). The interviewees were between the ages of 36 and 70, with an average age of 58. Five of the interviewees were female, eight were male.

Based on the surveillance system used, the interviewees can be divided into two similar-sized groups. Six of the interviewed people had a system based on access-control. These systems contained intruder detection methods such as glass break detectors, infrared detectors, cameras with motion sensors, and so on. Most of these systems were connected to a security services company named Verisure. Verisure's system included a camera which, in the case of an alarm, the company could access in order to view what was happening in the house. In addition to accessing the camera, Verisure's representatives would try to reach residents via phone. If residents were not reached, security guards would visit the house to assess the situation. The occupants themselves could not access the camera at any time.

The other group of interviewees, seven people in total, had varying types of systems based predominantly on camera surveillance in their homes, or in two cases, their secondary place of residence. These systems had one or multiple cameras that the residents themselves could view either online or through mobile applications. The feed was not routed through a security company. Most of the people in this group had a system provided by a company called Elisa. That system included one constantly recording camera (data was saved for 24 hours) which could be accessed by the resident online at any time. Additionally, the system included a motion detector which, if set off, alerted the resident's mobile phone.

Obtaining interviewees for this research proved somewhat difficult. Four of the interviewees with access-control systems and one with a camera system were recruited through shared friends, meaning I had heard from someone I know that a person they know has some kind of surveillance system in their home. I did not know the interviewees beforehand, but was given their contact details and they were aware in advance that I would contact them. It is likely that the interviewees were willing to participate because the request was coming from someone their friends knew. My aim was to also utilize snowball sampling (see e.g. Schutt 2006: 157) to obtain more interviewees. However, these five primary interviewees led only to two more interviews with access-control system users and one with a camera system user.

In addition to recruiting interviewees in this manner, five interviewees with a camera system were recruited through an online forum hosted by a company offering these systems. The forum enables conversation on multiple topics related to home surveillance systems and other services provided by the company. The interviewees were recruited from a thread discussing how people use their home camera surveillance system. I wrote a comment to the thread explaining that I was investigating the uses of these systems and would be willing to interview anyone interested in participating. Afterwards, I sent the same message privately to all discussants in that thread. Five people agreed to meet with me.

The interviews were conducted either face-to-face in a place suggested by the interviewee or on the phone if they so wished. The interviews were executed one-to-one except for two couples, whom I met together at their convenience. The interviews were conducted in Finnish, recorded and transcribed. On average, they lasted 45 minutes. Altogether the interviews lasted 8 hours 17 minutes and the transcribed data in total is 117 pages.

The interviewees were asked about three themes: (1) home and neighbourhood (i.e. what kind of a house they live in, who lives there, what is the neighbourhood like); (2) surveillance system (i.e. what kind of a system they have, how and why it was installed and how it is used); and (3) feelings toward surveillance in the home and in general. The interviews were semi-structured in the sense that they were all done in the same format and the same themes were discussed in each interview. However, the response categories were not pre-established and the questions were not necessarily set in the same order. Thus, the interviewees could freely express their thoughts on the themes provided (see e.g. Marvasti 2004; Schutt 2006.)

Qualitative content analysis was used to analyze the interviews. The data was analyzed for recurrent themes (Wilkinson 2004: 183) and excerpts were selected and transformed into standardized codes (Marvasti 2004: 94). The computer-assisted qualitative data analysis was made with Atlas.ti. The coding frame (Bauer 2000: 139) included the reasons people had for purchasing their systems, the varying ways the systems were used, and the feelings people expressed towards them (and also towards surveillance more generally). The unit of analysis (Wilkinson 2004: 183) was a sentence or a few sentences. The analysis was conducted on the original data, which was in Finnish. The quotes chosen for this article were translated from Finnish into English by author after the analysis was completed.

A few issues need to be addressed regarding the selection of the participants for this study and the activities described by them. Firstly, as most of the interviewees with a camera system were recruited through an online forum focusing on these systems, the participants are likely to be more interested in their devices and perhaps even use them more actively than other people owning these systems might. This might, however, prove beneficial, as one of the aims was to find multiple ways these systems are used. Furthermore, even though many of the topics discussed in the forum relate to technical aspects of these systems and the participants are likely more technologically savvy than other users might be, the themes investigated here are not technically oriented. Thus, their possible orientation towards technical elements of surveillance should not affect the analysis.

Secondly, the nature of the activities described in the interviews might be influenced by the interview situation itself. The interviewees do not necessarily want to reveal activities they think might be considered somehow dubious, as they might not trust the interviewer with personal matters. One way to ensure the authenticity of the replies is to attempt to establish a rapport with the interviewees (see e.g. Miller and Glassner 2004: 127-128; Baker 2004: 162). As an interviewer, I aimed to create an atmosphere in which the interviewees felt they could describe their feelings and actions without me questioning or challenging them. I also encouraged them to choose a time and place for the interview most convenient for them, and emphasized the confidentiality of everything told.

Thirdly, the data is clearly divided into two separate groups: those with an access-control system and those with a camera system. All of the systems included a camera, but the main difference between the two groups is the possibility that the interviewees themselves could or could not view the camera feed: those with a camera system could view it and those with an access-control system could not. However, this separation was not as clear to the interviewees: not all were aware whether they could view the feed themselves or if someone else (for instance the service provider) could access it. Furthermore, the reasons for purchasing the systems were similar regardless of the nature of the system used. For these reasons, both types of systems are included in the analysis. However, for the most part the analysis focuses on camera surveillance systems as they allowed more diverse uses and varied ways of managing the systems. Access-control systems are analyzed concurrently with camera systems when considering why they were installed. Accordingly, they are discussed briefly in this article where applicable. Information on which type of a system is concerned is specified within all interview excerpts.

Fourthly, two of the camera systems were located in a secondary residence of the interviewee. In Finland it is somewhat common to have a secondary residence: nearly 15 per cent of the population belong to a household-dwelling unit with a free-time residence (Official Statistics of Finland B 2014). As it is common for adult children to use their parents' free-time residence, this type of dwelling resonates with an even larger group of Finns. The two interviewees with a surveillance system at their secondary residence spent several weeks or more there throughout the year. The uses of their systems and the feelings described by them were very similar to those with a home camera system, and this is why they are included in the analysis. It is specified within the interview excerpt if the user has the system in question at their secondary residence.

In the following, I analyze domestic surveillance from three perspectives. Firstly, I consider why the systems were installed: the reasons interviewees wanted to purchase their systems and how the systems were sold to them. In this first section I consider both types of systems, that is, camera systems and access-control systems, concurrently. Secondly, I explore the camera systems in particular: beginning from how they were used, what was surveilled and what type of surveillance was produced through them. I then continue to consider the feelings and emotions the interviewees had towards implementing surveillance in the privacy of their homes. The concluding section draws together the findings on different types of domestic surveillance.

## Home Surveillance Systems in Action

### Turning Surveillance On

Installing home surveillance equipment demonstrates the residents' desire not only that their home provides protection from the outside world by preventing unauthorized access, but also that it safeguards "a sense of physical and mental well-being" (see also Rapoport 2012: 328). If something were to happen in their home, with the help of the surveillance system the resident would be warned, and thus able to act accordingly. Following the ideas of Francisco Klauser (2010: 327), the security provided by home surveillance can be considered as both "a condition of being protected from physical threats" and "a state of being immersed in a [...] sphere of protection." People interviewed for this research explained how their home surveillance system increased their sense of physical and mental well-being by preventing unwanted access and allowing them to know that everything at home was as it should be:

[With the system] you can get an assurance that no one unknown has pervaded your home and no one has broken anything, and you can feel positive that in a way you are home even if you're not, there's nothing more to it.

(Participant 9, man, age 68, system based on camera surveillance)

Most of the interviewees believed the first way the system prevents unwanted access is via the signs installed in noticeable places around the house warning potential intruders that there is a surveillance system in place. Mark Cole has argued that "whether there is a system of cameras present or not, the signage will achieve its proposed effect" (Cole 2004: 443). Much like in the context of camera surveillance in general where the signage is thought to emphasize and amplify the camera's effect (Cole 2004: 432), many of those interviewed believe the signage deters possible intruders. But, in the same way there can be dummy cameras, there can also be dummy signage. A few interviewees spoke to this:

The signs warn possible intruders straight away and tell them that they shouldn't come here and can't come here that easily, so that must have been the primary thought we had [when installing the system]. I did ask [the person selling this system] if we could only get the stickers (laughing).

(Participant 5, man, age 62, system based on access-control)

However, he continues to say that he appreciates the system because if something were to happen, someone would know about it and could do something: this was his primary reason for installing the system and not merely to deter potential intruders through the use of signs. The function of the signs can be seen as 'border control,' where the aim "is not to discipline individuals as in Bentham's Panopticon, but to discipline the border between private and public space" (Klauser 2004: 150; see also Boyne 2000). This border is where the signage operates. In this context, the outside is seen as 'dangerous' and the inside as 'pure' (Franzén 2001: 206–207; see also Klauser 2010: 332). The control happens on the border of these two spaces, and crystallizes in the form of warning signs glued to doors and gates. These signs create a barricade to hopefully prevent unauthorized access.

However, deterrence was not the only way in which the residents believed the systems worked. Even though the main focus was on the systems' preventive capabilities, many of the interviewees believed that if someone were to come into their homes, the system would provide a decent picture for the police to use, hopefully to identify and apprehend the suspect:

[With this system] I know that if there is something [happening at home], I can call the police and tell them that this is the situation now and give them a description [of the burglars].

(Participant 1, woman, age 59, system based on camera surveillance)

This potential for catching and prosecuting possible burglars formed a part of the mental well-being produced by the system. For many, it was not as important a feature as prevention, but it was seen as a kind of consolation: if someone breaks in despite the warnings, at least they will be captured. None of the people interviewed had used their system for this purpose since their homes had never been burglarized after installing the system. However, many of the interviewees reported that the system made them feel safe at least on some level. This was especially so with women who had installed an access-control system in their homes and were keen on using it when they were home alone:

Well yes... it does soothe me in a way. For instance, I am rarely home alone but when my husband is away for the night, I've been pleased that I can turn the alarm on.

(Participant 3, woman, age 64, system based on access-control)

Previous research has shown that women are the ones who are most often afraid, especially in urban space (see for example Koskela 1999, 2002, 2010). One problem with urban space surveillance is that one cannot know for certain whether or not he or she is monitored even if the equipment is in place. When using home surveillance systems, the feeling of safety can be built upon personal control of the situation, since for the most part people know how their own system works. They do not need to guess whether or not someone is watching or if the alarm is working or not; rather they know, since they have turned it on themselves. In some instances, fear might also be connected to age. One of the interviewed couples with an access-control system explained how their adult sons who had already moved away from home had smiled at them for installing the surveillance system. When I asked for clarification, they laughed and said their sons had called them 'fossils who got afraid.'

These findings on the reasons for installing surveillance at home resonate with previous research on both advertisements for surveillance products and the three claims often repeated by those promoting camera surveillance systems: the camera's supposed deterrence effect; the potential prosecution of criminals using the captured images and the feelings of safety the cameras allegedly produce (see for example Doyle, Lippert and Lyon 2012). Many researchers have questioned the accuracy of these claims and have argued that the actual findings on the effectiveness of the cameras are mixed and contradictory (Norris, McCahill and Wood 2004; Norris 2012a; Doyle, Lippert and Lyon 2012). To be clear, I am not arguing that home surveillance systems objectively 'work' or 'do not work' in these three tasks; my data are not sufficient to

evaluate this claim. However, the data do suggest that the residents believe in the system's potential to deter and prosecute criminals. Furthermore, my interviewees had a positive view towards the possibilities provided by this surveillance. This positive view towards camera surveillance is not surprising, since research in many countries, including Finland, shows that people frequently place blind trust in these systems (Dawson 2012).

The public perception of surveillance cameras is at least partly influenced by the private entrepreneurs selling these systems. It has been argued that "[c]amera surveillance is 'sold' to the public in a way that constructs a positive image and exaggerated idea of success" (Dawson 2012: 284). This is the case with both public CCTV and more private systems. The position from which the private entrepreneurs sell surveillance systems "is frequently one that lends itself to emotional and/or so-called 'common sense' appeals that resonate with the general public" (Huey 2012: 246). In addition, instead of focusing on the possible threats from which these systems claim to protect the residents, the ads focus on emotions and agency (Koskela 2014).

For instance, the two main systems used by the interviewees were sold by either appealing to the customers' good sensibilities, urging them to, "Turn your home smart and safe" (Verisure 2014) or by appealing to their parental instincts, with claims like the following:

With young school children this service has been irreplaceable. Kids often leave their muted cell phones in the bottom of their backpacks, and it's good to know that they have gotten home safe.

(Elisa 2014)

These kinds of ads gain their strength from appealing to the customers as smart and concerned consumers, specifically in the role of parents, partners and pet-owners. Especially the latter advertisement sells surveillance to parents "as a necessary tool of responsible and loving parenting" and as a way "to keep the child 'safe'" (Marx and Steeves 2010: 193, 198). The logic of the advertisement is that children cannot be trusted (to leave their cell phones on, for instance) and therefore have to be monitored or spied on (Marx and Steeves 2010: 193).

Hille Koskela (2014: 326) argues that surveillance marketing has a few special characteristics compared to general product marketing. These include consumers with a certain amount of technological expertise (see also Klauser 2009) and the existence of a trustful relationship between the customer and the service provider. Many of the people interviewed were interested in the latest technology and were keen on testing new gadgets:

I simply was technologically oriented and had been buying a lot of stuff from E-bay, their prices were really good, so I thought 'why not.'

(Participant 6, man, age 44, system based on access-control)

In addition to being interested in the latest technology, marketing was mentioned by many interviewees as an important reason for acquiring their home surveillance system. As no one had ever had their home or secondary residence burglarized before installing the system, prior victimization was not an incentive for them to acquire the system. Rather, the systems were sold to them in a way that convinced them they were valuable and thus marketing affected their decision to acquire a system:

I saw an ad somewhere, maybe it was in the paper or somewhere, I don't remember. Anyway, I thought that there is a good system, and so it is.

(Participant 12, man, age 51, system based on camera surveillance)

There was no clear reason for it. It must have been that there was a good salesman, and he made a very appealing offer, it was half free for a certain time and my wife was very much in favour of it, so I said yes.

(Participant 2, man, age 64, system based on access-control)

And I must say that the person who sold this system to us used credible examples from our own neighbourhood [...] so that must have sparked it: that is why we made the decision.

(Participant 7, woman, age 60, system based on access-control)

Especially in the last quote, it is clear how the person selling surveillance equipment used examples close to the interviewee to make the sale. At a theoretical level, this type of circulation of 'scare stories' contributes to "the social production of fear" (see e.g. Koskela 2010: 389) and demonstrates how "safety has become the fundamental value of our time" (Furedi 2002). There is a strong link between fear and the security business, where the latter takes advantage of the former. Safety is used vigorously as a selling point. Thus, security equipment is not only marketed to companies and institutions, but increasingly to private homeowners as well (Koskela 2010: 402). My data suggest that marketing domestic surveillance equipment has positive consequences for the seller: for many interviewees, the advertisements worked.

Reasons for acquiring a system also reflected a combination of other factors. For many, the purchase was something that had been thought about occasionally, but the thought was only acted upon when someone offered the system for sale or when a good ad campaign was executed. Such circumstances can also lead to the situation described in the opening quote of this article, where the residents were not sure of the capabilities of their system and did not know whether or not the camera was actually filming them when they were home. The system was merely something they had bought, turned on and left alone.

#### Doing surveillance<sup>2</sup>

Even though home surveillance systems can be "designed to identify and to singularize the exceptional, the non-normative, thus partaking in the exclusion of the Other" (Rapoport 2012: 324), the actual usages of the systems are much more diverse. The 'other' these systems are used to monitor is not always or even often a malevolent intruder, but, as I will point out, either a casual passerby who is running her/his errands or someone who is supposed to be in the surveilled area, such as someone living there.

Among the interviewees, the first and foremost use of home surveillance systems was to capture images of people in the surveilled area. These people included those who were either wanted or not wanted on the premises. This type of use was primarily motivated by traditional reasons for conducting surveillance: control or care (see Lyon 2001).

Even though the primary reason for installing these systems was to protect the home from unwanted visitors (control), there were only a few cases when the camera had recorded someone unknown to the occupants of the premises, and in none of these cases had anyone attempted to enter the residence without invitation.

[What have you seen through the camera?] Empty yard. And a few times the mailman has come with a package to see if anyone's home but that's it. Nothing else.

(Participant 12, man, age 51, system based on camera surveillance)

This type of response was common among those interviewed. Indeed, monitoring for the purposes of intruder control formed only a small part of the uses of these systems. The cameras, however, were in

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<sup>&</sup>lt;sup>2</sup> This section focuses specifically on camera surveillance and the uses of the camera-based systems.

some cases used to monitor people, especially children, in the house (care). This was possible in many cases because the camera was wireless and easy to move from one place to another:

The secondary task [of the system] is that we have this big house and sometimes we are babysitting a small child and she sleeps far away in the house. So we take the camera to her cradle and we can see from the other end of the house if she's sleeping or doing something else.

(Participant 11, woman, age 64, system based on camera surveillance)

In this case, the camera is nothing more than an advanced baby monitor, providing parental convenience and freedom (see also Marx and Steeves 2010: 199): the grandparents I interviewed could do their own chores anywhere in the house and at the same time keep an eye on the sleeping child through their mobile phones.

It has been argued that, especially in relation to children, surveillance technologies are not so much about discipline and control as they are about care (Rooney 2010: 345). People use these technologies to look after their children, regardless of their age:

At that time my son was in the first grade in elementary school, and due to the circumstances he was forced to come home from school alone, and that was one of the reasons [for the camera] [...] so that I could see that he has come home and that he is there.

(Participant 10, man, age 36, system based on camera surveillance)

Care-related uses also included monitoring adult family members who were doing potentially dangerous chores (such as chopping wood). In these cases, the aim of the caring gaze was to ensure that everything was as it should be and that there were no disturbances to routine daily life.

This same function also applied to the care of domestic animals. One of the interviewees, a middle-aged woman, used the camera mainly to check on her dog during her working hours. She had a live feed from the camera on her computer desktop all the time and she could see her dog moving in the apartment, "barking at the mailman" and sleeping. Through the camera, she could ensure that everything was as it should.

In Vibeke Jørgensen's (2004) study on webcams in Danish nurseries, she conceptualizes webcams as tools which give parents the feeling of protecting their child. In her research, the motives for using the camera equipment include gaining insight into the nursery, acquiring a feeling of presence, having control and being entertained. The interviews in this study offer similar findings with respect to control- and care-related uses. The father quoted above, for instance, used the camera as a way to ensure his child's safety and also as a way to ease his own mind when he could not be home physically watching over him.

In addition to monitoring for control or care, it was not uncommon to use the cameras for playful or social purposes or merely to pass the time. The cameras were used for instance to observe nature, wildlife and the weather:

It's not that uncommon that every now and then a bigger animal moves in our neighbourhood. If that would happen, say a wolf would walk through our yard, I could prove it to others, that I'm not crazy or anything.

(Participant 12, man, age 51, system based on camera surveillance)

I move the camera around. Sometimes it films the shed outside, sometimes it films birds nesting. When we are at home, it has no use.

(Participant 9, man, age 68, system based on camera surveillance)

Furthermore, the cameras were used as a tool to communicate with family members. These uses included relying on the system to automatically notify family members when someone arrived at home or at the secondary residence, using the cameras to signal from outside to inside, or monitoring family members when they were doing their chores and using that information to instruct them:

The screen [showing the feed from the cameras] is on the kitchen table and you can check from it what is happening in the yard. And we often... we have this sauna near the main building so if you are there at the sauna you don't have to call out [to someone at the main building] to come there, you can just wave at the camera.

(Participant 8, man, age 58, system at secondary residence based on camera surveillance)

My son lives near our house and we have agreed that when we're abroad he'll water our plants. The camera upstairs sends an alarm to me [to my mobile phone] when someone is climbing up the stairs. So I can watch him water the plants and I can even call him straight away to remind him not to forget the furthest plant.

(Participant 9, man, age 68, system based on camera surveillance)

Gavin Smith (2007) analyzes CCTV technologies as social mediums, where people being watched are not mere 'objects of information' but 'subjects of communication.' By arguing that CCTV technologies facilitate social relations, he contests the common notion that watchers are active and empowered 'agents' and the watched are passive 'objects' (Smith 2007: 282). Like other CCTV technologies, home surveillance systems can be used as 'social platforms' (Smith 2012: 111) which facilitate two-way communication between residents. However, in the context of home surveillance cameras, the distinction between user and target is further blurred, as both can be beneficiaries of the system at the same time (Rapoport 2012: 330):

It was actually funny that my son understood that I was watching him through the camera and whenever he walked past it, he remembered to greet me (laughing).

(Participant 10, man, age 36, system based on camera surveillance)

Here, the camera is not only substituting the actual presence of the father in the room, but it enables a new form of communication between the two. As "the camera becomes a proxy for human presence, its versatile nature embodies alternative interactions between observer and observed" (Rapoport 2012: 331). Both groups, that is the watcher and the watched, adapt and appropriate this socially situated technology (Smith 2012: 111), and the camera's gaze "contributes to new social formations" (Wise 2004: 425).

The analysis of the uses of home surveillance systems presented here has focused on camera surveillance systems. However, there are some similarities in access-control systems, especially in control- and care-related surveillance. Home owners with an access-control system used their system to protect the house when they were away, and in some cases if they were home alone. These types of uses are control-oriented in nature. But a few of the interviewees with an access-control system had also considered the system's potential for care:

I remember when we first purchased the system we were discussing it with the representative from the company selling it and in those conversations he gave us examples on how it can be used—we then talked about those examples with our kids. That if there is some kind of an emergency at home [...] with the system they can alert a security guard there.

(Participant 7, woman, age 60, system based on access-control)

These uses resonate with caring about children who are home alone—the system brings an additional layer of safety for them. However, besides control and care, access-control systems do not truly enable other uses. For instance, using them for any kind of recreation or communication was not really possible for my interviewees.

To summarize, home surveillance systems in general at first seem anything but social, since they are technical devices which are activated to alert a homeowner if an unauthorized person enters the home. However, their real uses, particularly the uses of camera systems, are much more diverse. Within the uses examined above, I can separate four different types of surveillance motivated by control, care, entertainment or need to communicate.

The first type of surveillance stems from the main reason the systems were originally installed: to protect the home and the resident from physical threats. The systems are used for *controlling surveillance*: to control access to the premises and to monitor possible intruders. The cameras produce "an *awareness* of everyday life" (Wise 2004: 432, emphasis in original), but also help to preserve that everyday life as it is. Monitoring is done to ascertain the constancy of the normal and to "singularize the exceptional" (Rapoport 2012: 324).

Second, the cameras are used to monitor family members, especially small children, as a form of *caring surveillance*. These first two motives for surveillance are self-evident, as "to surveil something essentially means to watch over or guard it" (Bogard 2006: 98). The notion of surveillance entailing activities of care and control emphasizes that the same processes of 'watching over' both enable and constrain (Lyon 2001: 3). To elaborate, when a camera filming a living space is accessed by a parent, the discursive meanings produced differ if the one watched is a babysitter taking care of a child, a teenager hanging out with her/his friends, or a burglar (Rapoport 2012: 331). Home surveillance cameras accordingly reveal "intertwined networks of care and control" (Wise 2004) and the monitoring gaze is an instrument in them both.

The third type of surveillance identified here is *recreational surveillance*. This includes monitoring wild life, weather, and other scenes merely for entertainment purposes. These uses highlight that surveillance practices can also include playful, entertaining and amusing elements (Albrechtslund and Dubbeld 2005) and that so-called 'hard' surveillance technology can and is increasingly used for playful purposes (Ellerbrok 2011). The playful and recreational uses emphasize that home camera systems—and their CCTV counterparts—cannot be understood merely as technical systems, but need to be considered as 'socio-technical systems' (Norris 2012b: 24) where the user is as relevant as the technology itself.

The fourth type of surveillance is *communicational surveillance*: using surveillance equipment to communicate with family or friends from a distance. Cameras which route their feed either online or otherwise to a computer screen are "liminal devices," operating "on the threshold of the physical and the cybernetics, like points of contact between reality and the virtual realm" (Campanella 2004: 58). These systems take data from reality and translate them into machine-readable code transferrable into cyberspace, thus operating "in between" these two worlds (Koskela 2006: 165). These types of camera systems provide an interesting contradiction between virtual and material spaces and between distance and closeness. With these cameras, the material space (home) can be accessed from anywhere in the world in

virtual space. Additionally, through these mediums it is possible to experience presence in a space that one is not actually physically in, similar to how we can "feel close to those with whom we communicate online, but are physically distanced from" (Knight 2000: 22; see also Wise 2004: 428). This is "the strange space we inhabit in relation to surveillance": we experience being both near and far (McGrath 2004: 28). As one of the interviewees put it, "in a way you are home even if you're not" (Participant 9, man, age 68, system based on camera surveillance). Home surveillance cameras offer people the possibility of watching, and at the same time they enable "surveillance at a distance" (Fuchs et al. 2012: 15; see also Rose and Miller 1992: 180).

In the previous two sections, my aim has been to investigate why people *turned surveillance on* in their homes and how they utilize the cameras: how they *do surveillance*. The uses of the cameras in particular present more variation than the reasons for installing them. The motives for installation are rather straightforward and hardly surprising. They demonstrate a poster-picture of home surveillance systems: they are installed to keep people safe, and people claim to feel safe. What more is there? There are, after all, situations when the cameras are turned off.

Turning surveillance off

And I always have the feeling that the camera is watching me. Luckily there isn't an LED light on top of the camera on all the time. If there were, I might get a bit paranoid.

(Participant 10, man, age 36, system based on camera surveillance)

When I began this investigation, the main questions driving me were formed around the individuals executing surveillance in their premises; specifically, I was interested in the watchers. I wanted to find out how and why they executed surveillance the way they did, and what their experience of surveillance was in that context. However, when conducting the interviews and my preliminary analysis, I found that the most intriguing questions rose around the feelings people described when they felt watched in their homes or when they were questioned about their role as the watcher. Installing and operating surveillance equipment was by no means insignificant to many of the occupants. They had ambivalent feelings towards their systems, and varying ways of mitigating the potential exposure of themselves and their family to the gaze of the camera. In the following section, I analyze the feelings of watching and being watched at home, and consider how people mitigate their potential exposure by managing their camera systems.

Kirstie Ball (2009) argues that Surveillance Studies do not have a particular take on the surveilled subject despite the fact that surveillance practice has consequences for the individual in the frame. She offers the concept of 'exposure' as a central notion in analyzing the surveilled subject. A few definitions given to 'exposure' include "the act of subjecting someone to an influencing experience; presentation to view in an open or public manner; the disclosure of something secret; the state of being vulnerable or exposed" (Ball 2009: 647: cited from <a href="www.wordreference.com">www.wordreference.com</a>). To be exposed to surveillance is to be subjected to it in a manner where something private is disclosed in a public way. Thus, the main focus is on the (mental or physical) state of being vulnerable. This vulnerability to surveillance is emphasized in the private sphere of one's home: "[a]ccessible to the constant gaze, the home acts as the site for *exposure* as webcams, surveillance cameras and other recording devices document residents' most private activities in the most private of spaces" (Rapoport 2012: 329, emphasis mine). Ball (2009: 644) argues that if one discovers one is exposed to surveillance involuntarily, it "provokes emotional, psychoanalytic and corporeal responses which are sometimes stultifyingly profound."

The interviewees with a camera system expressed a concern that the feed or the records of the cameras placed in their homes would be accessed by an unauthorized person. This concern is not completely without basis, as webcams and WiFi-linked CCTV cameras can and have been hijacked for voyeuristic purposes (for more on this type of 'reality porn' see Bell 2009: 206). Many of the interviewees had

considered the possibility of involuntary exposure when installing the surveillance system and found it troubling:

Well we did have some discussions with my wife [when installing the camera]. She was a bit frightened about the purpose of this camera and worried if someone could see something through it. But we decided to trust the information security provided here. And the camera is located in a place that is... well it's not for instance the shower or anything like that, so it probably wouldn't be that awkward. But yes, I must admit thinking that now I have a camera in my own home connected all the time, it does make me wonder, and I have contacted the supplier of the system and asked for a feature that would make the system easier to turn off.

(Participant 10, man, age 36, system based on camera surveillance)

In a few interviews, the systems' potential for exposing the residents involuntarily was reflected in the context of trusting the system provider (see also Koskela 2014: 326). For instance, even though the user hesitated in the case above, he decided to trust the information security provided by the supplier. However, he had considered turning the system off as a way of mitigating the fear of unwilling exposure. A similar way of managing exposure was discussed by several of the interviewees. In some cases, turning off the system was further re-enforced with pulling the plug from the socket so that there was absolutely no possibility the system could monitor the residents. This action was explained either as a way to regulate exposure to the potential gaze of the camera or simply as a rational decision; there is no need for the camera when someone (an adult) is at home.

And I always turn the system off—pull the plug from the socket I mean—when I am at home. [Why?] Because I have this nasty feeling that someone can hack into it or something. It's horrid to have this feeling that someone is following you through the camera.

(Participant 1, woman, age 59, system based on camera surveillance)

The type of exposure feared by the residents is not only exposure to unwanted surveillance, but also exposure to someone unauthorized entering their home. Many felt that the purpose of their surveillance system was not so much to protect the possessions they had as it was to prevent the uncomfortable feeling they felt about someone entering their home without permission:

The things we have here [at home] don't matter that much, we can always buy new stuff, but it's... how to put it... invading my physical and mental integrity if someone were to barge in here if we're not here. So I'm not thinking that much about the things we own or putting value on them, but I do value what's between my ears. I feel more comfortable and at peace when I know the place is surveilled.

(Participant 12, man, age 51, system based on camera surveillance)

The fear of exposure is strongly connected to a condition of physical and mental integrity, a "sphere of protection" (Klauser 2010: 327), that the residents wish to protect.<sup>3</sup> This condition is invaded if the resident is exposed either to an unwanted gaze or an unwanted visitor. These types of feelings also resonated with access-control system users who expressed similar ideas about how their system protects their mental and physical integrity:

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<sup>&</sup>lt;sup>3</sup> A single Finnish word, *koskemattomuus*, was often used by the interviewees. This word entails not only physical integrity but also a feeling of being untouchable, autonomous and 'intact.'

[And if someone were to break into our house] the entity that would get tainted would be the untouchability of our house. In my view, that is the most ghastly thought.

(Participant 4, woman, age 58, system based on access-control)

Thus, home surveillance systems create a paradoxical situation in relation to exposure. The systems claim to protect the resident from exposure to the outside world (in that they claim to prevent outsiders from entering the premises) but at the same time the systems expose the resident to an unwanted gaze (by including a WiFi-linked camera in the system). This in part created an ambivalent feeling towards surveillance among the residents.

As surveillors of and in their own property, the residents position themselves in reference to an ideal of integrity. Even though a camera at home could easily be used for spying on family members, it seems these uses are explicitly avoided. The system's potential for spying was discussed in several interviews, and many argued that they do not operate their system in this manner. The interviewees as watchers positioned themselves above spies and voyeurs:

I'm really meticulous in that I have no camera which, for instance, would film my wife indoors. When we leave the country I turn the camera so that it films the entire living room and the stairs going up, but when we are here and if someone is inside the house, then definitely not.

(Participant 9, man, age 68, system based on camera surveillance)

When my adult son is there [at the residence] with his family or with their friends I obviously do not watch the feed. They know that it is filming all the time but I do not look at the feed until they notify me that they have left the place.

(Participant 13, man, age 70, system at secondary residence based on camera surveillance)

The instances when the system was kept on even if someone was in the house were when children were home by themselves. However, even though the systems were used to monitor children, they were not used to spy on them, or at least these uses were frowned upon. This means that the monitoring in these cases did not happen without consideration of the feelings that unknown surveillance imposed upon the children could awaken. One man I interviewed explained how he used the camera to check on his son who was in elementary school and had to spend long afternoons at home alone or occasionally with friends. The father kept an eye on the boys through the camera:

[When I have watched them through the camera] the kind of situation hasn't come along yet that I would have had to call home and ask them to stop doing something they were doing. And actually I have been trying to avoid that situation because I don't want to impose the feeling on my son that his dad is stalking him through the camera. I deliberately haven't wanted to give him the feeling that he is surveilled.

(Participant 10, man, age 36, system based on camera surveillance)

The residents I interviewed measured the use of their systems against a principle of integrity and were troubled if their motives were questioned—for instance, if visitors were concerned that they might be filmed when in the house. In the residents' own views, they used their systems for honest purposes and even the suggestion that something suspicious might be going on evoked feelings of annoyance:

Some guests we have, when they come to our place, they say that please don't use the images in the wrong way. And they ask whether or not they can go to the sauna because I have these cameras. I tell them that the cameras are not there, they have been switched off. It is a bit unpleasant thing for me. I always tell them that they will not be filmed in their bath robes, or if they are there with or without a towel, that we will not be filming those who go to the beach, the cameras are turned off now.

(Participant 8, man, age 58, system at secondary residence based on camera surveillance)

In addition to the four types of surveillance analyzed above, a fifth type is introduced here: *sincere surveillance*. While the first four types focused on reasons for conducting surveillance, the fifth focuses more on the way that surveillance is executed. These systems were not used for voyeuristic purposes—or at least it was not brought to my attention. On the contrary, it seemed important to the interviewees that they were considered as moral and right-minded in the surveillance they themselves executed. The surveillance they produced was 'pure' in the sense that they considered it, along with their motives for doing it, to be innocent.

This last type of surveillance should be considered carefully, as the interviewees might want to portray a certain image of themselves and might avoid revealing more negative realities of using their systems. It seems that many of the uses, and particularly non-uses, can be connected in different ways to issues of trust. For instance, interviewees 9 and 13 above explain how they do not watch the feed when their family is spending time at home or at their secondary residence. They position themselves as right-minded in their watching and believe their family trusts them not to watch—being almost proud to be worthy of that trust. Interviewee 10, on the other hand, watches his young son through the camera, but does not want to give him a feeling of being watched. If the son would think "his dad is stalking him through the camera," it might diminish the trust between the two. Interviewee 8 explains how he has been suspected of watching unwarrantedly and sometimes has to convince his guests that they are not being filmed. It feels unpleasant to him that he is not explicitly and immediately trusted as a watcher, and that there is even a suggestion of "using the images in a wrong way." Lastly, in the following quote, one interviewee explains how he detests even the possibility of using the system for spying. In a sense he has difficulties trusting himself and hence would be happier if it was not possible to use the system to, for instance, eavesdrop:

I hate that the system has that microphone. I'm not interested in eavesdropping on anyone. [...] I feel that the current features of the system in my use step too far in the area of spying.

(Participant 12, man, age 51, system based on camera surveillance)

In sum, even though the manner of conducting surveillance presented here should be considered critically, there seems to be little reason to doubt the uses that actually were described by the interviewees. Although it is possible that some uses were not mentioned, the uses that were described support the view that the surveillance produced with these systems was meant to be sincere. The home surveillance camera users interviewed here had varying views on trust: thinking they were trusted; wanting to maintain trust; being suspected of untrustworthiness; and not trusting oneself. Regardless of the viewpoint, trust was important to them all.

Ultimately, having any kind of surveillance technology at home, whether it is based on access-control or camera surveillance, might lead to a wider acceptance of surveillance altogether. When interviewing people with home surveillance equipment one must acknowledge the presence a certain level of prosurveillance attitude in the dataset; installing this system signals at least a somewhat positive attitude towards surveillance. Indeed, many of the interviewees considered themselves fairly pro-surveillance and

stated that installing the system had not changed their views. Additionally, there were a few who had been skeptical towards surveillance before but now found it useful:

Yes it [the installing of the system] has affected me. Like I said in the beginning, I resisted us having this system, and felt like we are giving in to the thieves if we have to start protecting ourselves like this. I was somehow against the whole idea. But now in recent years when we have heard these things, I have oriented myself into thinking that this is how it is also in Finland nowadays, that we need to have surveillance.

(Participant 2, man, age 64, system based on access-control)

This kind of reasoning resonates with fearing risks and taking precautions. It is a part of a new condition of living in a "culture of fear," where it is "better to be safe than sorry" (Furedi 2002; see also Koskela 2010: 396). The culture of fear is formed by caution and mistrust and in that culture threats are unavoidable: people no longer aim to reduce them, but aim to protect themselves from them. The fear also justifies "behaving in a self-centred and family-oriented way: for defending one's own" (Koskela 2010: 397).

In the context of surveillance, these kinds of views connect to a larger societal shift, namely the "ideological normalization of surveillance" (Fuchs et al. 2012: 11) which has happened simultaneously with the emergence of a "viewer society," where watching in all forms has become common (Lyon 2006: 36). From the interviews in this study, it became apparent that home surveillance technology has become a part of the daily lives and activities of the residents and they have grown accustomed to it. Many interviewees stated that after having a surveillance system in their homes they would no longer want to be without one. These kinds of opinions were expressed by the access-control system users as well as the camera system users:

I actually noticed it when [...] the camera was off for some time, I got this feeling that now I do not know what is going on at home—a thing which I obviously had never thought about before. [...] But when you get used to having it [a connection to home] I really noticed that when I didn't have it, I absolutely needed to get it back.

(Participant 1, woman, age 59, system based on camera surveillance)

For the interviewees, the possession and operation of surveillance systems had become the new normal. The feelings of unease explored in this section highlight that these technologies can have unexpected consequences for the residents: the technology they brought home to protect themselves from exposure might also be subjecting them to it.

#### **Conclusions**

This article set out to examine why and how home surveillance systems are used and what the meanings and implications of these systems are to the residents. The results are based on thirteen interviews with users of surveillance systems in private dwellings. These systems were installed to protect the residence when away, to deter potential burglars, and to provide the residents with peace of mind. The advertisements of these surveillance systems influenced the residents' desire to acquire them. It is in the interest of the seller that the potential customer is afraid. As Frank Furedi (2002) has argued, "safety has become the fundamental value of our time," and the home security business exploits that value.

Being under surveillance, especially in the privacy of one's own home, can evoke positive and negative feelings simultaneously. As a consequence of surveillance, the residents might obtain "a sense of confidence and freedom" as they feel safe and protected (Rapoport 2012: 328), but at the same time might be annoyed or fearful of the thought that they might be watched without their knowledge. The unease

regarding this technology is especially reflective of the nature of home as a private place. These systems are installed to protect the home as a private place, but since it is such a place the idea of unwilling exposure is ever more troubling. Even though the residents have consciously chosen to implement surveillance technologies in their homes, they want to regulate potential exposure to the monitoring and consequently manage their systems in a 'sincere' manner. In a similar vein, home surveillance systems protect the occupants from exposure, but also subject them to it. The system protects the residents' physical and mental integrity, but at the same time threatens it. The residents might feel annoyed as people suspect them of unwarranted watching, yet they are pleased that they can monitor their homes while away. These contradictions form the essence of the paradox that is domestic surveillance.

In analyzing the usages of the home surveillance systems, five types of surveillance are examined. Controlling surveillance ensures that everything in the home is in order, and that no unwanted people are in the residence. This type of surveillance appeals to the original stated need for the systems. Caring surveillance ensures that one's family is safe. It targets especially children, but also adults who are doing something potentially dangerous. The aim of this care-oriented surveillance is to ensure that there are no disturbances to the normality of everyday life. Recreational surveillance entails monitoring the weather, wildlife, or other scenes that offer passive entertainment value. These uses are more playful, and aim to pass the time. Home surveillance equipment is also used for communicational surveillance, a type of technically mediated interaction. The system can aid in day-to-day communication and even enable new types of interaction between the residents. The fifth type of surveillance analyzed and introduced here is sincere surveillance. Whereas the first four types focus on the motives for conducting surveillance and thus answer the question 'why?,' the fifth type explores the feelings of conducting surveillance and being surveilled, answering the question 'how?'

The residents as watchers aspire to separate themselves from voyeuristic watchers and spies. It seems generally acceptable to monitor babies, but when it comes to older children or adults, there is a level of consideration in the watching. A child is watched in order to ensure his safety, but that watching is not to be done without him being aware of it. The situations where adult family members were monitored happened mainly in the context of bi-directional communication. Thus the adults were not spied on without their knowledge, but rather the system was used as a tool by both the watcher and watched for the purposes of communication. An intriguing question emerges here about the age at which a limit could be drawn. Would the father still monitor his son's activities when he turns 12, 14 or 16? Or perhaps would the child object to being monitored at all as he grows older?

This empirical research highlights domestic surveillance as a mix of conflicting issues relating to protecting one's property (or subjecting oneself to monitoring), feeling safe (or feeling exposed), communicating with loved ones (or being suspected of spying on them), and enjoying the possibility of watching (or detesting the possibility that someone unauthorized is watching or that one's own watching will be seen as 'insincere' by another). These contradictions show that the surveillance logic underpinning these products is not merely one of control and care, but also one of recreation and communication, and that common uses of these systems do not mean that those who choose them do not feel ambivalent or conflicted about them.

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