Governance by pilot projects: Experimenting with surveillance in Dutch crime control
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4. Provocation: The Intensity of Technology in the Surveillance of Public Space
Introduction

A vast amount of technologies that collect data about individuals are employed to maintain law and order in public and semi-public spaces, such as city centres, shopping malls and public transport. The examples are manifold. Data mining is used in law enforcement and policy. Camera supervision aids police officers, entrepreneurs and residents. Social media are used to create customer profiles. Technologies, however high tech or low tech, thus create and reproduce identities in public spaces by tracking, profiling and constructing suspicion (or a need for care). This has consequences for the quality of public life because performing these identities affects how individual liberties can be exercised and how authorities can be held accountable (Amoore, 2008; Németh and Schmidt, 2011).

Scholars concerned with the socio-technical arrangements (such as actor-networks, infrastructures and assemblages) that constitute surveillance have addressed how these technologies integrate into regimes of surveillance and control. Once integrated they reproduce identities invisibly. As is argued for airport surveillance: ‘passengers are scanned like a bar code and are silently organised and processed’ (Adey, 2004, p. 1377). We should therefore aim to open up how technologies silently sort individuals and groups (Kanngieser, 2013; Lyon, 2006; Lyon, 2007). But does technology only operate from the background? This is a remarkable assumption because many of these technologies are intentionally made visible, and become part of everyday interactions in public space. Surveillance cameras and speed sensors are among the many examples.

This article aims to develop an alternative conceptualisation of technology in the context of the surveillance and control of public spaces. This is done by examining how technology affects identity. The article contributes to those fields where the consequences of technologies in the surveillance and control of public spaces are discussed in terms of socio-technical arrangements, such as science and technology studies (STS), surveillance studies and human geography. From feminist strands of STS and material semiotics I adopt an engagement with the ways in which technologies and identities come into existence outside of the realms of the standardised and dominant (Star, 1991; Haraway, 1997). The main argument is that technologies do not only affect identity silently from the background by coding, sorting and categorising. They also provoke. Building on previous work by Javier Lezaun, Fabian Muniesa and Signa Vikkelso (2012), I suggest that provocation is the socio-material production of identities in a provisional, emotional and deviant manner. Provocation indicates the need to work on alternative conceptualisations of technology in terms of temporality and visibility.

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1. This chapter is currently under review as: Grommé, F., Provocation: The Intensity of Technology in the Surveillance of Public Space.
An ethnographic account of a ticket inspection practice in which a spray with synthetic DNA (SDNA) was introduced leads to these conclusions. Codemark, as I call this spray, was used in a pilot study in 2010 and 2011 by public transport company Tramcom. It was introduced in a large Dutch city to empower Tramcom’s ticket inspectors. Dutch ticket inspectors have increasingly reported verbal and physical abuse over the past five years; a problem reported by various authorities inside and outside the Netherlands. Codemark was to prevent assault and to track perpetrators. It is a transparent liquid containing SDNA, which is an industrially manufactured string of fifteen to twenty base-pairs (DNA’s molecular building blocks). The string functions as a ‘code’ that can be sprayed on the assailant’s body. Industry’s capacity to fabricate DNA is nothing new; it has been used in research for several decades under the name of ‘oligo’.

In case the sprayed person would be caught by the police within a week, the code found on the body of the alleged offender could be matched with the code on the spray can worn by the inspectors. In Dutch courts, Codemark can serve as complementary evidence. However, Codemark’s main function, as emphasised by the distributing company, was to deter passengers from aggressive acts. DNA’s reputation in popular culture as inescapable scientific evidence was to strengthen its preventive effect (a ‘CSI-effect’, after the television programme).

In what follows, I ask how passenger and inspector identities are affected by Codemark’s use. What sort of authorities does it create when used in a tram? What kinds of witnesses, suspects or policing identities will be made present? Rolland Munro suggests that by their visibility, artefacts make identities motile (1999). In a material-semiotic interpretation of the concept of motility I take identity to be motile with changing collectives of words, gestures and artefacts. An examination of Codemark’s usage in the pilot’s training phase, in ticket inspection and in the project’s evaluation shows that Codemark, as part of material-social arrangements, took part in provocations. Provocations, I suggest, affected how actors took part in everyday enactments of accountability, justice and fair and equal treatment in public spaces.

**Technology: Timing and Visibility**

*Intensity*

I first briefly turn to a story from the field for an indication of how the visible presence of technologies can affect identity. In my fieldwork I joined Tramcom’s ticket inspectors on their inspection rounds in trams and on stops. Usually the inspectors worked in uniform, in teams of three or four. Yet, at times they conducted undercover inspections in street clothes. I observed an undercover tram inspection on my first day in the field and made the following field notes:
Two young women start an intentionally loud conversation about the inspections ... Some persons continue their phone conversations when they are being fined, or do not look up from their smartphones. The inspectors ask them explicitly to stop using their phones. Passengers also use Twitter to warn other travellers. (field notes, November 15, 2011)

I close the day’s entry with my experiences of this day in the field:

During the day I sometimes feel vulnerable because everybody watches you ... The supervisor thought I would stand out less during an undercover inspection [without a uniform I could be part of the crowd]. Nevertheless, I notice that for outsiders, I am still part of the group of inspectors. (field notes, November 15, 2011)

In a tram, everybody is aware of each other in some way. Artefacts are involved in managing the actors’ engagements in the inspection. Smartphones are used to withdraw oneself from the tram or even to ignore the inspectors. By announcing inspections on Twitter one becomes involved in active protest against the increasing prices in public transport. My street clothes, furthermore, refuse to make me part of the regular crowd.

These are not durable identities. They are only relevant for a moment and depend on temporary relationships. This was also observed by Ruth Soenen in her ethnography of interactions in a tram (2009). She demonstrates how passengers and inspectors engage in brief and superficial (‘ephemeral’) relationships that are nonetheless relevant for the experience of community and the related experiences of safety and security.

How do identities come into being with and through Codemark in this setting? Science studies and related disciplines have predominantly studied technologies as part of networks, assemblages and classification infrastructures. These approaches have in common that technologies work on the background to reproduce identity, to sort and to categorise.

Technologies that collect and analyse data are durable and normalised parts of these collectives. I use one influential example from the STS literature to illustrate this predisposition, although there are more. In Sorting Things Out: Classification and its Consequences Geoffrey Bowker and Susan Leigh Star discuss classification infrastructures in medical and government practices (1999). The authors are concerned with how personhood is affected by the moral and pragmatic choices made in the creation and application of categories. They insightfully demonstrate how classification infrastructures become black-boxed and eventually invisible. This also explains their success: ‘classification work is smooth, as if by magic’ (p. 9).

These insights are valuable to the analysis of contemporary technologies’ consequences for identity. This field also provides valuable nuances by demonstrating how classifications change over time (Hacking, 2007); how categories might be stretched in practice (Yanow, 2002); and how the rules over applications are subject to improvisation (Bowker and Star, 1999).
Yet, the main message is that technologies work silently and from the background to reproduce identities. They become visible only when there is a controversy or when they break down (Bowker and Star, 1999).

By contrast, the identities in the fragment above are short-lived, the technologies are used visibly, and their positions in durable infrastructures do not seem to be of much relevance. Consequently, the technologies in this situation seem to produce identities in a different intensity, that is to say, they do their work at a precise moment in a visible way for a short time. Although there is no need to abandon the vocabulary of categories and infrastructures, we do need complementary concepts to understand how technologies take part in the performance of identity in varying intensities.

**Motility**

There are other ways for identities to come into existence with technology. From Susan Leigh Star’s feminist work we learn how identities can exist outside of durable structures. These do not merely exist as ‘residuals’ from standardised and dominant forms of identity empowered by technologies and standards. Identities that seem fragile should be understood as alternative, but equally powerful, ways of existing, ‘marginality is a powerful experience’ (Star, 1991, p. 52). Consequently, we need to understand how actors invest in identities that do not seem standardised and stable, but changeable and discontinuous.

Recent work in ‘post’ actor-network theory and material semiotics has adopted the feminist occupation with difference, understood in this article as an awareness of not only the ‘dominatory’ (Law, 2008, p. 637) identities produced by stabilised infrastructures. It is suggested that identities come into being in material-semiotic collectives of humans and artefacts (M’charek, 2008a, 2008b; Gad and Lauritsen, 2009). These can be fragile yet structural, meaning that, although they do not seem to be dominant or stable, they are recurrent and persistent (Law and Singleton, 2005; M’charek, 2010; M’charek, 2013). Furthermore, they can be very loud, as these collectives ‘are not neutral and docile objects, but normative and active ones’ (M’charek, 2008b, p. 521).

Rolland Munro’s work offers a further elaboration of these views. He describes technology and identity in relationships that are not necessarily durable, yet relevant at specific times and places. ‘People come into unconcealment through their things’, Munro argues, suggesting a role for the visible presence of technology (2004, p. 298).

A central notion in Munro’s work is motility, by which he expresses how relations and identities may shift in specific arrangements of ‘materials, gestures and words’ (2004, p. 310). He offers an illustration from Henry James’ novel *The Ambassadors*. The main character of the book accepts an address card by a new female acquaintance when he has just arrived in Europe from the New World. The effect of the card on the main character, Munro suggests, is the revelation of an alternative identity to the fiancé of a wealthy American heiress.
In a material-semiotic interpretation of Munro’s work, identities, understood as the nuance of the self and others (Munro, 2004, page 293), achieve their relevance in particular arrangements of human and non-human actors. Moreover, as Munro argues, identities can be made to stand out in moments in which this is relevant. There is a ‘timing’ effect to the visible work of artefacts. Artefacts may ‘call’ for the display of an identity here and now. They make another range of identities possible, yet they can also annul other identities in doing so (Munro, 2001). For instance, in this article some technologies involve actors as witnesses, while annulling the possibility to be bystanders.

In Munro’s cases identities are often realised as part of relations in which people hold each other accountable. This makes his work instructive for the enactment of identities in the everyday operations of surveillance and control in a tram, such as witnesses and bystanders. Not only persons and artefacts physically present in that situation play a role as actors outside of the situation are also made present (Munro, 2001). In the example of the card, the main character quickly tucks the card away in his coat, knowing how his fiancée would react. At times, these ‘shadowy others’ express what would rather not be referred to.

Two remarks are in place here. First, the point of the argument above is not precisely that the card symbolises the fiancée (cf. Streeck, 1996) or that the fiancée is an ‘implicated actor’ whose position is affected by the main character’s actions (Clarke and Montini, 1993). It is rather that the card changes the relations that shape identities; it makes a different ‘lifeworld’ present (Munro, 2001, p. 476). Second, the example indicates that artefacts are not deterministic. After all, James’ main character chooses to ignore the telegrams from his fiancée.

By considering the motility of identity, we do not only learn what identities are made to stand out, but also how this is done. In what follows I will show that Codemark took part in a production of identities in a deviant, emotional and provisional manner. The notion of provocation is suggested to distinguish the events in this case study from accounts of technology that affect identity silently and durably. It thereby indicates the need to develop alternative conceptualisations of technology in the surveillance of public spaces.

Training

Customer friendliness is important to Tramcom’s corporate image, therefore the inspectors are trained as hosts. At the same time, the inspectors have increasingly been given tasks in passenger safety. Accordingly, the inspectors’ role as a repressive authority in public space has become more salient because they are now trained as private security officers. Dutch private security officers have limited police competences in surveillance and investigation. These include writing police reports, investigation (mainly identification; only in the act) and access to city and police registries. Besides fining in the absence of a ticket, the inspectors can fine when a person cannot show a correct means of identification.
In this section I will discuss how the inspectors were trained to use Codemark, and how this brought into being inspector and passenger identities. I start from the position that the training phase of the pilot is no less ‘real’ than the operational phase. It is simply another situation in which identities are made to stand out (in a later section in this article, I will regard project evaluation in the same way).

**Inspector Identities**

Usage of Codemark does not require a license or training. Nevertheless, Tramcom hired a private security agency to instruct the inspectors. About fifty persons attended in an old factory now serving as a dojo. They were instructed in mixed male-female groups of about fifteen inspectors. The general aim was to teach the inspectors how to use Codemark preventively. The inspectors were to discourage passengers from confrontational behaviour by communicating about Codemark. Passengers would learn about its effects by word-of-mouth communication and by a Tramcom media campaign (a plan that was never realised). The inspectors’ ability to communicate about Codemark was considered crucial to its success; this was practiced in role playing exercises.

In the first exercise, teams of two inspectors were asked to explain Codemark to a passenger. They were to prepare and deliver a pitch. On inspector Lisa and Danny’s turn supervisor Henk played what he referred to as an ‘interested passenger’:

*Interested passenger (supervisor Henk): What’s that? Is that a candy box or something?*

[The inspectors do not react, and the conversation continues]

*Interested passenger: Is that a taser [stun gun] or something?*

*Danny: That’s none of your business.*

*Interested passenger: Are you not allowed to talk about it?*

*Danny: Just check the internet. (field notes, November 15, 2011).*

Lisa explained her response to the group: ‘I would never tell people what this is. Everybody is already all ears as it is now. I really don’t want to do this’. Furthermore, as she and several other inspectors contended, if you do not explain anything, passengers might think it is pepper spray. As soon as passengers learn what Codemark actually is (‘water with a code’), they might find out that ‘it’s harmless, and they will laugh at you’.

I next consider Lisa and Danny’s final exercise of the day: the use of Codemark against a ‘fighter’. This is the inspectors’ term for a passenger who might become violent when asked for his identification (the inspectors need identification to fine). The fighter was played by Henk. The inspectors were expected to use Codemark to convince him to cooperate. They could accomplish this, according to this scenario, by telling him that he will be caught by the police anyway because they would always be able to retrace the code.
Instead of talking about Codemark, however, Jessica used Codemark defensively. She sprayed it on the passenger when he refused cooperation and moved towards the two inspectors. Danny expressed his frustration right away: ‘I am just not used to this yet’. He added that a lengthy explanation about Codemark would only make the passenger more aggressive. Lisa concurred: ‘it looks like a taser’.

Deviant performances with Codemark were frequent in the training. Earlier, Lisa and Danny had decided not to communicate about Codemark at all, hoping that passengers would think it is pepper spray. Codemark was performed as a candy box, as water, as pepper spray and as a means of defence. To be sure, other inspectors had used Codemark to convince their suspect to cooperate. The point therefore is not that the inspectors failed, or that the scenario was wrong. These aberrant performances point at something more interesting than failure. By visibly performing alternative scenarios with Codemark, identities were made motile. Alternative inspector identities were made to stand out. Lisa, Danny and other inspectors presented the group with a vulnerable inspector, instead of an inspector who is in control. Codemark-as-water, for instance, underlined the vulnerability of the inspectors towards passengers and their lack of competences compared to the police.

In addition, inspectors argued that Codemark’s resemblance to a weapon would spark passenger aggression. Codemark thus jeopardised the inspectors’ professional identity as hosts and the relations they had built up with their guests. Along the same lines, the inspectors expressed their concern for the health effects of Codemark for passengers, as well as the possibility that passengers would be sprayed by accident and become suspects. The inspectors’ professional identity thus was on display, as well as the fragility of this image.

Deviant scenarios also expressed the embodied nature of inspection work. Earlier in the training, the inspectors were taught how to handle Codemark: how to hold it, which commands to use and how to move your body. The directions were inspired by pepper spray instructions for the police:

*Trainer Jan explains: ‘you use your thumb for spraying, not your index finger. This is not a deodorant or something’. He continues to explain that when you spray you need to assume a ‘fighting position’: your feet stand apart from each other and your knees are slightly bent for stability. When you spray, you aim for the hands, and use the following command: ‘stop or I will mark!’*

*Inspector Dirk and supervisor Henk practice together. It is Dirk’s turn to spray, and Henk plays the role of assailant. Dirk sprays. ‘On my hands, not in the crotch!’ Henk exclaims.

*Dirk excuses himself: ‘Sorry, it’s the adrenaline.’ (field notes, November 15, 2011)*

Dirk was joking. Yet, the joke is meaningful because it foregrounds the stressful situations that the inspectors sometimes encounter by connecting Codemark to adrenaline. It expresses the loss of control and Dirk’s embodied experience of this; situations missing from the role playing scenarios.
In the foregoing, performances and stories with Codemark also included passenger identities, such as interested passengers and fighters. The inspectors’ alternative uses of Codemark made these identities stand out. They were motile, however: an interested passenger can easily become more aggressive with Codemark. The discussion ensuing Lisa and Danny’s final role play suggests yet other passenger identities:

Danny: A situation like the Citysquare seems suitable for this [Codemark]. We needed to protect a colleague from a large group of people. Then you can say: ‘move or I will mark you’.
Jan (trainer): Yes that’s also a good example.
Roger: It would be a good means to give cover indeed, but we should also let the media know that it isn’t harmful.
Danny: For me it’s a repressive means of arrest.
Roger: You would have three suspects instead of just one.

... Henk (supervisor): The most relevant advantage is that you can convince people who would otherwise try to run away.
Danny: Bystanders are the worst.
Lisa: It’s no fun in those situations if you’re with only two people.
Dylan: You need both of your hands in those situations. (field notes, November 15, 2011)

The inspectors discussed how they would like to use Codemark. Their propositions contrasted its preventive and communicative usage, as stressed by supervisor Henk. The inspectors’ proposals have in common that they refer to persons other than the passenger the inspector is directly addressing: ‘a large group of people’, ‘three suspects’ and ‘bystanders’. Danny’s reference to the incident at Citysquare is relevant because in this situation a crowd turned against a small group of inspectors.

The inspectors’ concern with groups is not surprising, as they work in spaces where a large number of people watches and scrutinises them. As Lisa expressed it earlier: ‘everybody is all ears’. The inspectors were aware of this and applied various techniques to create a good atmosphere in a vehicle, for instance, by loudly wishing everybody in the vehicle ‘good morning’. It might be concluded that, although these passenger identities were not newly invented, Codemark was part of making them present at particular moments. This, in turn, highlighted the inspectors’ vulnerability.
**Deviancy**

In sum, in addition to a preventive usage, role playing scenarios and discussions displayed deviant uses of Codemark. I refer to deviancy as acts that present challenging alternatives. Identities beyond the professional and controlled inspectors and the interested passenger were made present through deviancy. In relation to objects such as adrenaline and pepper spray, vulnerable, burdened and embodied inspectors were also made to stand out with Codemark. Furthermore, third person identities, such as bystanders, were made relevant. In the next section, I will return to these themes as I discuss how Codemark was used in trams.

**Ticket Inspection**

During tram inspections canisters with Codemark were worn on the inspectors’ belts. In the first few months of the pilot, Tramcom employees reported, passengers inquired about them. Passenger interest dwindled after the first few months, however. A media campaign to inform passengers about Codemark was furthermore cancelled due to budget restraints, with the exception of a press release. Deterrence by word-of-mouth became the main strategy.

Yet, Codemark’s use did stand out at times. In this section I present three examples to illustrate the ways in which Codemark took part in making identities motile around the themes of accountability, authority and justice. We do not only learn about the nature of the identities that were made to stand out, but also about the role of emotion in accomplishing this.

**Anchor**

My first fieldwork experience with Codemark’s use in a tram was during a ‘special action’. Whereas the inspectors usually remained on a vehicle for several stops, they now checked each tram at one location and left it before it moved on. In one tram, the inspectors encountered a tall man who wore a necklace with an anchor pendant (I will refer to him as Anchor). Anchor was fined by two inspectors because he did not carry a valid ticket. He became angry and four inspectors were needed to convince him to leave the tram. After the inspectors managed to identify him they fined him. Anchor got on the next tram, but we soon heard loud shouting. I joined inspector John to the tram:

> ‘I was not allowed to check in [validate a ticket],’ Anchor says, ‘this is unfair’. Six inspectors now surround him. Anchor loudly claims he is being discriminated against. According to him, another woman in the tram was allowed to validate her ticket. ‘Fuck off!’ he yells at inspector Danny. After that, inspector Chris tells Anchor that he is arrested and that he should leave the tram. (field notes, May 1, 2012)
The arrest is an important moment for the inspectors because it is a point of no return. Legally, to arrest means to ‘bring to trial’. From the moment of arrest, therefore, the arrestee has the right of assessment by a legal authority (in Tramcom’s case usually the public prosecutor). The inspectors have to wait for the police to arrive. Yet, the arrestee will not always cooperate:

*Anchor resists the arrest and he seems to reach out to Chris. Ben sees this and runs to Chris. ‘I will spray you’, he exclaims. He pulls the can of Codemark from his belt and points it at Anchor. ‘You can spray me’, Anchor says. ‘Stop now’, Ben says. ‘Spray, spray’, Anchor answers, but lets the inspectors lead him to the platform … Eight inspectors surround Anchor now. ‘I have freedom of speech’, Anchor says … Ben replies that this is a case of insult, not of freedom of speech.*

The group has to wait for the police to arrive. Anchor is still upset. ‘You are surrounding me’, he says, ‘can’t you just take me to the police in your van? This is discrimination, you vote for Wilders, don’t you?’ ‘True’, inspector Danny answers, ‘but that has nothing to do with this’. When the police arrive, they discover that Anchor was carrying a large stiletto knife in his bag. Coincidentally, carrying these types of knives is a criminal offense since today. (field notes, May 1, 2012)

Ben’s use of Codemark is notable. He used the command ‘I will spray’ instead of ‘I will mark’. The former is the police command for pepper spray. Ben and several others knew this command and started using it to pretend they were carrying pepper spray. It affected Anchor, who during the wait for the police told the inspectors that he thought the inspectors were carrying pepper spray.

Codemark-as-pepper spray did not only express the inspector’s authority, it also became part of Anchor’s identity as a victim. Anchor claimed his right to freedom of speech was not respected. He furthermore resisted the arrest on grounds of discrimination. Anchor is dark-skinned, in contrast to the inspectors. One reason for the accusations, as Anchor told the inspectors, was that another woman was allowed to validate her ticket. He furthermore accused the inspectors of voting for a politician named Geert Wilders (known for his anti-immigration politics and accused of xenophobia and racism). The inspectors replied that this woman ‘was Surinamese’, implying that she is of the same descent as Anchor. Therefore, the inspectors claimed that they did not discriminate. Anchor was surprised. He wished they had told him this before; he would not have gotten this upset.

A performance with Codemark, together with the commands and gestures of pepper spray and various verbal objects of repression and injustice (discrimination, Wilders, freedom of opinion and a van to take him away), made Anchor’s victimhood stand out besides his guilt. Emotion, understood as the performance of feeling (Bissell et al., 2012) was part of making these identities stand out. At the same time, emotions assumed their form with and through Codemark.
### Hat

Ben and other inspectors estimated that about seven persons had used Codemark as pepper spray. These events usually were not formally reported because a report is only required when the substance is used to mark. One event in which Ben used Codemark was recorded inside the organisation, however, as Ben informed me. The second example presented in this section is a description of this video.

The footage shows how Ben and three other inspectors conduct a routine inspection in a tram. Ben and his colleagues approached a group of about six young men and women between the ages of sixteen and twenty. They began with checking the ticket of one group member, a young man with a black woollen hat (therefore referred to as Hat).

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Hat’s ticket is not valid, and Ben tells him that he needs to fine him. Hat objects. When he entered the tram, he saw a ticket salesman in the back, but he decided to wait for him to come his way. ‘How am I supposed to know that you are a ticket salesman?’ ‘I’m not a ticket salesman’, Ben says, ‘and you are supposed to buy a new ticket right away. But you just sat down and waited. So hereby I require your identification because I need to fine you.’

Hat will not cooperate. Ben tells him that if he does not cooperate, he will arrest him. After a discussion of several minutes, Ben notifies Hat that he needs to hand over his identification or ‘he will take Hat by the arm’ [private security officers need to announce use of force]. The group of friends now becomes involved … telling Ben that he is ‘not a policeman’. Ben asks Hat if he insists on refusing to hand over his identification. After repeating the question, Ben tells Hat he is arrested, and takes him by the arm to leave the tram.

Once on the platform, Hat asks Ben if he will ‘please stop holding his arm’, in the same calm tone he has had during the entire incident. ‘I will not run away’, Hat tells Ben. The latter replies: ‘If you do, I will spray you’.

Ben’s final statement did not seem to affect Hat or his friends. Furthermore, Ben did not utter it in a moment of threat; Hat was very calm. As the inspector let go of Hat the following discussion ensued:

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Hat: You’re only doing your job. I didn’t know you were a ticket salesman.

Ben: We’re not ticket salesmen, we’re inspectors. We’re certified private security officers.

… Hat [very calm]: But you shouldn’t take my arm like that. You never know what might happen.

Ben: That doesn’t matter; we’re allowed to do this. We have police competences. We can use handcuffs, everything (video transcript)
The core of the discussion seems to be Hat’s confusion about Ben’s identity: is Ben a ticket salesman or an inspector? And when are you allowed to touch? This may not be Hat’s reason for not buying a ticket; we cannot know his reasons. What we do learn is how Ben used Codemark to demonstrate his authority. Codemark allowed him to release Hat’s arm, while at the same time proving his competence to use physical force. What is more, Codemark allowed him to specify his authority as a private security officer, as opposed to a ticket salesman or policeman.

Yet, Codemark did not seem to affect Hat’s identity as a concerned and confused citizen. He continued to stress that the actions of the inspectors were unjust. He furthermore made it clear that Ben put himself at risk. ‘You never know what might happen’, he told Ben, referring to others who, unlike him, may not remain calm.

Young Woman

Unfortunately, Hat’s prediction came true, as will be shown by the final example in this section. I learned about this incident from one of the involved inspectors.

Inspector Sander and I are waiting at a tram stop. I had heard that Sander had used the spray. ‘You really want to know about that?’ he says. Sander tells me he was working in a tram with three colleagues. He addressed a young woman who had put her feet on a bench, against Tramcom’s house rules. The woman and her friend denied and were offensive and rude, Sander says.

… Sander told her he would write a fine and asked for her identification. She attempted to flee, and a struggle ensued. Sander sprayed the woman with Codemark (‘that way, I would not end up empty-handed’), after which he handcuffed her [the moment of arrest according to the police report]. At this moment, the situation escalated, according to Sander. Bystanders in the tram turned against him.

Soon the police arrived, but they had ‘already been turned against them [the inspectors]’, Sander claimed, by ‘bystanders’ who had told the police that the inspectors had used pepper spray. (field notes, May 30, 2012)

Sander had used Codemark on the off-chance that, if the woman fled, the police could find her back and use the code to connect her to the incident. I want to highlight here how Codemark played a role in involving other passengers in the situation. Codemark was not used with the pepper spray command. Nevertheless, passengers reported it as pepper spray to the police. These passengers might have already been ‘concerned citizens’ critically observing the inspectors. Now they were enrolled in the situation as witnesses. Importantly, they became witnesses for another authority: the police. In addition, some took justice into their own hands as they threatened the inspectors.
Emotion

To summarise, Codemark together with skin colour, police vans, politicians and pepper spray commands and gestures made Anchor’s victimhood stand out. For Ben, Codemark was part of his authority at that moment: to legally hold a person. Finally, Codemark enrolled passengers as defendants of the arrestee, judges of the situation and police witnesses. Yet, Codemark did not always affect identity. In Hat’s case Codemark did nothing to change his identity as a concerned and confused citizen, strengthening his appeal to justice by bringing in ‘others’ Ben might encounter in the future.

These events are instructive about the nuance of identity in relation to technology at particular times and places. As in the training, Codemark’s use was visible and challenged the scenarios. What is more, the actors made their identities as victims, judges and authorities stand out through emotions, understood here as the display of feelings, such as indignation, concern and fear (Bissell et al., 2012). This is also suggested by the previous section, in which the performances of Lisa, Danny and Dirk included frustration and humour. I will return to this point later in this article. For now, I argue that emotion made identities stand out.

Reporting

Codemark was not only used in trainings and inspections; it was also present in verbal and written reports. I use these reports to highlight another aspect of how Codemark affected identity: it did so provisionally. For a short duration, it highlighted identities that were not formally acknowledged.

Police Investigation

The case of Sander and the young woman is instructive for understanding how Codemark made identity motile in reports. After the incident in the tram, the young woman filed a complaint with the police in which she claimed that the inspector’s had used force excessively. She furthermore stated that Codemark had been used to harm her. In her words, she had been ‘drowned in SDNA’. In the investigation the four involved inspectors (Sander, Roy, Michael and Frank) were shown CCTV footage of the incident. One day in the field, Michael and Roy discussed the investigation:

*Michael:* Four men against one girl. The police of course asked why we used four men to approach one girl. But it just looks so different on the camera images.

*Frank:* And you do not hear the bystanders shouting at you.

*Michael:* They also use stills. You only see one girl and four men. (field notes July 18, 2012)
Tramcom suspended Sander for six weeks (the case did not go to court). But police evidence missed something important according to the inspectors: visual and audio footage of bystanders. The video therefore did not convey the threat as experienced by the inspectors.

By contrast, bystanders were given a prominent role by Sander (police report, February 2012). He reported them as threats influencing his actions. He stated in his police report that he saw ‘passengers looking in my direction angrily and heard their loud shouting’. Sander had used Codemark on a ‘bystander’ who spat in his face and threatened to attack him. Other passenger identities also made an appearance in this report, such as ‘ten passengers’ who, according to Sander, could serve as his witnesses. It was in relation to the threatening bystanders, however, that Sander made his identity as vulnerable and threatened visible.

Threatening bystanders and a vulnerable inspector did not become part of the lasting assemblage of materials that functioned as police evidence. Sander’s report of the arrest therefore was the main platform to express threat, vulnerability and the involvement of bystanders that turn against you. This is one of the reasons why Tramcom rigorously trains its inspectors to use standardised phrases that express emotions and feelings of threat, such as: ‘I did not feel safe in this situation’; ‘I was afraid that’; ‘I experienced this situation as threatening’ (police report, February 2012).

The use of Codemark contributed to the visibility of the vulnerable inspector because it stressed the urgency of the situation. It made identity motile together with standard sentences and bystanders. In a police report about Anchor something similar occurs:

*I, the reporting officer, saw how the suspect made a pushing movement in our direction.*
*I, the reporting officer, saw that my colleague [Ben] took his Codemark spray and said ‘cooperate or I will spray you’. I, the reporting officer, next heard that the suspect said ‘let go, and I will go outside’ … I also saw how Ben asked him whether he was carrying sharp objects. I saw that he gave Ben a large knife in a cover.* (police report, May 1, 2010)

The report does not only give an account of the incident; it is a performance in its own right. It conveys the situation as experienced by the inspector: a situation of threat. We thus see how in different collectives, Codemark makes varying identities stand out. In the tram Codemark was used to express Anchor’s victimhood (next to his guilt) in a collective of skin colour, discrimination, insult, police vans and freedom of opinion. By contrast, in the report, a knife in relation to Codemark made the inspector’s vulnerability stand out.
Provisionality

By comparing the inspectors’ reports and police evidence we learn that deviant uses of Codemark made identities stand out that were not solidified in police evidence. With Codemark as part of varying collectives, identities were made present at exact moments and for short periods. Yet, as I will suggest here, these identities were not arbitrary.

The vulnerable inspector was also made present by deviant performances with Codemark in the training. By referring to adrenaline it was suggested that in threatening situations inspectors will and cannot always conform to prescribed scenarios of action. Furthermore, trainings and police reports made clear that inspectors are not always in a position of absolute authority; they are vulnerable to the gazes and actions of others.

The inspectors as vulnerable, emotional and embodied contrast with the inspectors’ use-of-force trainings. These instructions focus on one-to-one interactions. Furthermore, they provide schemes for rational decision making to de-escalate incidents. Missing from these trainings, however, is acknowledgement of the loss of control that can occur in stressful situations. The inspectors expressed this part of practice by mentioning adrenaline and hostile bystanders.

With Codemark, therefore, a relevant inspector identity that was usually not acknowledged or denied was made to stand out. This is also true for identities that were relevant for passengers. In the case of Anchor, Codemark contributed to a victim identity; performing the inspectors as repressive forces by drawing together pepper spray, police vans, skin colour and anti-immigration politics.

Importantly, accusations of discrimination went both ways: the inspectors accused the passengers and vice versa. The point for now is that in this nuance of identity, the inspectors were no longer simply professionals. They had become part of larger social issues including ethnicity, race, immigration and equal treatment. Now cast as supporters of anti-immigration politics, their ability to act as impartial authorities was questioned. Codemark was part of this ‘precise delivery of identity’ (Munro, 2004, p. 294).

Tramcom stopped using Codemark after a year because Codemark had no preventive effect, the evaluation report argued (June 2012). Nevertheless, Codemark had made visible discriminatory, vulnerable and irrational identities external to the durable assemblages of police evidence. This section highlights the provisionality of Codemark’s operation in two ways. First, it shows that the identities performed during ticket inspection rarely make their way into formal evidence. Second, the police reports themselves are performative; they conveyed these identities to the reader even if they did become part of the final verdict.

These momentary identities were relevant as they affected everyday enactments of accountability and justice in public space. They expressed phenomena all parties were familiar with (loss of rational control and discrimination), but were nevertheless denied or left unattended. Following Munro, artefacts expressed what would rather not be referred to (2001).
Provocation

Codemark did not become an invisible and durable part of reproducing identities. Instead, identities were made motile by Codemark’s visible presence. I suggest that we might refer to this production of identity as ‘provocation’. To provoke, broadly defined, is ‘to call forth’ (Merriam-Webster’s Collegiate Dictionary, 2006). Provocation thus adequately describes how Codemark, in collectives of materials, gestures and words, was a stimulus for denied identities to be made present. Consequently, through various provocations, a voice was given to issues regarding justice and accountability in public space. Furthermore, it conveys the intensity of the events that occurred in terms of deviancy, emotional content and provisionality.

In my usage of the term, I am indebted to Lezaun et al.’s analysis of a series of deviant, and sometimes ethically dubious, social scientific experiments in the first half of the twentieth century (2012). These laboratory experiments staged realities in response to the experienced threats to liberal democracy, for instance, experiments with autocratic leadership. The operation of these experiments is characterised by, among others, expressionism and use of trauma. These features made social problems surface that otherwise were ‘not readily available’ (p. 279). The term ‘provocative containment’ is proposed by the authors to describe these experiments and their effects.

I suggest extending provocation from a description of a particular type of scientific project, to a notion that expresses the intensity by which technology, as part of socio-material collectives, can constitute identities. For instance, an embodied inspector identity was provoked by jokingly spraying the supervisor. The identity of inspectors as illegitimate authorities was provoked when passengers reported Codemark to the police as pepper spray. This case study suggests three relevant aspects that characterised provocations: deviancy, emotion and provisionality. I use these aspects to distinguish provocation from accounts of technology that affect identity invisibly and durably.

The first two aspects describe Codemark’s mode of visibility, while the latter forces us to consider temporality. First, provocations were characterised by deviancy: acts that present challenging alternatives. We may compare this to the operation of breaching experiments. From this category of sociological experiments we learn how deviancy can expose dominant norms and possibly and denaturalise these. In this case, the technology took part in the deviant act (cf. Marres, 2012).

Second, provocations operated through emotion. I do not refer to provocation in a narrow sense: to cause anger or irritation. Emotions can be understood as practices that involve the body language, artefacts and other people; as ‘ractical engagements with the world’ (Scheer, 2012, p. 193). In this case emotions, such as indignation, anger and fear, made identities stand out. At the same time, these emotions took on their form with and through Codemark, as Codemark was essential to the display of these emotions.
Third, identities were not necessarily lasting. Munro’s work about the motility of identity leads to this point about the provisionality of identity. Identities and their political significance can change quickly, as different relations in configurations of humans and things take shape (M’charek, 2010). Stuart Hall’s notion of articulation also is helpful here. Articulations, Hall argues, should politically be understood as temporary positionings that could also be otherwise (Interview by Grossberg, 1986).

To elaborate on the latter point, there is a paradox in provocation. Provocation produced identities through deviancy. As a consequence of the deviancy inherent in the provocations, however, the resulting identities were not integrated into lasting accounts. This also means that provocation should not be understood as an intentional action for lasting personal gain. In the case of Codemark there were no winners. This is illustrated by Sander’s conflict with the young woman. Using Codemark in this situation got him suspended.

Finally, a word about the agency of technology is in order here. Codemark had agency, but not by means of its functionality as a code to deter, mark and track possible perpetrators. Instead Codemark was performed as pepper spray, harmless water, a candy box and a taser. With regard to the example of pepper spray, the canister seemed to compel the inspectors to hold and use Codemark as if it were a canister of this inflammatory substance. It also made the trainer adapt and use policing instructions for pepper spray (in slips of the tongue, the instructor also referred to Codemark as pepper spray). At the same time, Codemark’s agency was achieved in changing collectives of commands and postures partly determined by history and materiality. Many of the inspectors were already familiar with pepper spray routines, as they had previously (during another pilot study) been instructed from teaching material that included the use of pepper spray.

The notion of provocation may be especially relevant to at least two types of situations. The first regards cases in which a technology is not integrated in a practice. Examples are technology pilots and various other experimental circumstances. Such cases, in Andrew Barry’s words, allow for demonstrating truths that cannot be expressed by different means (2001). With regard to the second, numerous cases regarding the maintenance of order in public spaces are characterised by the contestation of identity. For these situations it is not difficult to imagine that identities are brought into existence in alternative ways. One of these might be characterised as provocation.

**Conclusions**

Technologies that collect data, track, mark and profile affect how public spaces are shared and experienced. The Codemark pilot suggests that technologies do not only take part in the surveillance and control of public spaces by coding, sorting and categorizing identity. They also work in different intensities; by being present, and precisely by not being durable.
Insights from the fields of feminist STS and material semiotics support such notions about technology and identity. Authors in this field point out that there are different ways for identity to exist in relation to technology: discontinuous, fragile, yet structural. Moreover, the notion of motility points out that the visible presence of technology can make identities stand out in moments in which this is relevant.

In the Codemark pilot broadly three sets of identities were made present. The first included passengers as suspects, concerned citizens, victims, witnesses and judges. For example, Codemark was part of a collective of objects, words and gestures that made Anchor’s identity motile. Anchor was not only a suspect, but also a victim. In relation to Anchors accusations of discrimination, the inspectors became voters for a right-wing politician. In this nuance, the inspectors were made into participants in a broader social problem involving ethnicity, race and immigration.

The second set of identities included the inspectors as vulnerable, emotional and embodied, next to the inspectors as a rational actors. Deviant performances with Codemark in training and reporting demonstrated that the inspectors experienced physical threat. By referring to adrenaline, it was made to stand out that in threatening situations, inspectors cannot always conform to rational scenarios of action. Furthermore, trainings and police reports made clear that inspectors are not always in a position of authority; they are vulnerable to the looks and actions of many others. These alternative inspector identities also highlighted passenger identities, from ‘fighter’ to the threatening ‘bystander’.

The third includes the inspectors’ policing identities. These varied with Codemark’s changing identity. Codemark was performed as harmless (as water or a candy box) by the inspectors to emphasise their substandard gear compared to police officers. By using Codemark as pepper spray, however, they attempted to underline their position of authority. As shown by the case of Hat, it made the inspector into an authority with the skills and competence to use violence.

The case points out that Codemark was part of performing identities relating to justice, accountability and fair and equal treatment at relevant moments. It also informs us about how this occurred and to which effects. First, Codemark was part of defiant performances: as self-defence against groups; as a taser; as a technology that should be kept secret; and as pepper spray. Second, emotions, such as indignation, anger and fear, made identities visible. At the same time, Codemark shaped these emotions. Third, Codemark was part of nuancing identities that were present, yet usually unacknowledged or denied by all actors involved, including higher management and policing authorities. It only did so provisionally, however.

I suggest referring to this material-social production of identities as provocation. Through provocation, issues that do not find their expression in commonly accepted means of evidence are given a voice as a result of a process that is defiant, emotional and provisional.
Provocation adequately describes the technological mediation of identity that is not durable and integrated into the background, yet relevant for everyday enactments of accountability and justice in public spaces.

The case also points to some relevant nuances. First, the paradox of provocation is that identities were made visible by deviancy. Yet, deviancy was often not accepted. As a consequence, the identities were provisional. Second, provocation had no real winners. In fact, it created uncomfortable positions for all that were involved. We should thus distinguish provocation from efforts to annoy or irritate for personal gain. Third, technology can provoke, yet its agency takes shape in collectives of humans and things. The initiators of the pilot introduced Codemark as a spray with SDNA that deters possible assailants, and might track and trace them. Yet, in the pilot, the shape of the can and Codemark’s functionality of the spray became more relevant.

To conclude, provocation can be especially useful to understand how technology might affect public space in different intensities: by varying levels of visible presence and in varying temporalities.

Notes

1. I use fictitious names to guarantee the anonymity of my informants. I do not mention the titles of internal documents in the bibliography for the same reason.
2. Tramcom recorded 67 cases of violent assault, 78 cases of threat and 158 cases of ‘aggression’ in the first six months of 2011 (internal report, July 2012).
3. In addition, I interviewed Tramcom management, the company supplying Codemark, forensic experts and local policy officers.
4. All field note quotations and other field materials are translated from Dutch by the author. Field notes were written during or directly after observations. A digital version was normally produced within forty-eight hours.
5. Also see Ball and Di Domenico (2010).
6. Soenen draws on Goffman’s work. Goffman’s insights are invaluable for understanding how the self is performed, and how situated interactions constitute and maintain public order (Goffman, 1966; Hirschauer, 2005). Yet, this line of work also has considerable shortcomings. First, it is limited to co-presence (Munro, 2001). Second, Goffman and others distinguish between a ‘front’ and the ‘real self’ (Goffman, 1959). I start from the position that all identities are part of a lived reality.
7. These approaches have all, in different ways, been influenced by Foucault’s work on the constitution of the subject (1994; 2009).
8. Authors inspired by assemblage theory likewise describe how technology is at work in the background, making flows of information possible and thus providing an architecture of power (cf. Prainsack and Toom, 2010). Actor-network theory is another influential example, arguing that the categories that people ‘subscribe’ to are embedded in inscriptions (Latour and Hermant, 2006).

9. These insights have informed other social science fields, notably surveillance studies. In this line of work technology often codes, categorises or sorts (cf. Lyon, 2007).

10. Various authors have turned to ‘interpellation’ to describe how artefacts and identity affect each other ‘in the moment’ (Haraway, 1997; Law, 2002; Munro, 2004). Althusser’s famous example of the policeman also is informative (1971). I chose to refrain from using the term because it carries the connotation of something that stands in advance.

11. Other vocabularies refer to primary (the self) and secondary identities (the other). I refer to both because they always stand in relation to each other.


13. Dutch citizens aged fourteen and older are legally required to show identification when asked by appointed authorities.


15. Geert Wilders is the leader of a Dutch liberal nationalist and populist political party (PVV). He generates media attention with public statements that reject immigration and parts of (what the PVV perceives as) Islamic culture.

16. References to skin colour, race and ethnicity intertwine here, as they often do in Dutch debates about racism and discrimination.

17. I refer to this person as ‘the young woman’, or ‘woman’ because no other usable information was mentioned in reports and accounts.

18. Law and Singleton use the term ‘absent presences’ to describe how making one object present implies making another absent. In this case, however, identities seem to be present yet othered (2005).

19. Provocation might be regarded as a less routinised variation of Mol’s notion of enactment (2002).