

SURVEILLANCE IN A STATE OF PRECAUTION

A discourse mediating state control and sociability

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Introduction

The academic and societal debate about surveillance in the information society displays two dominant discourses: the control state on the one hand and the social state on the other. The control state discourse represents a story of the state whose desire for control results in optimally using the possibilities information and communication technologies (ICTs) offer to watch and discipline citizens. It’s the story of a country like the Netherlands where more phone calls are tapped than in the United States, where fingerprints are stored in one central database and where surveillance camera’s spy on us in the streets. The second discourse, the social state, involves citizens who blog and twitter while keeping an eye on each other via social networking sites. On top of this, they can always be reached on their mobile phones. This discourse is about citizens who want to use ICTs to advertise themselves and make social connections.

Each discourse studies and evaluates surveillance in a different way. The first discourse points the finger at the state’s infinite desire for control, whereas the second discourse focuses on the shameless behaviour of citizens. The state collects too many personal data while citizens give away too much of themselves and others. We question, however, to what extent these assessments are helpful to interpret the implications of modern surveillance practices for the government-citizen relationship. Can the use of Automatic Number Plate Recognition (ANPR) by the police solely be understood as a manifestation of the control state or is another interpretation possible?¹ Do Dutch citizens register for the Citizen Web² out of a need for self-expression or is something else the matter?

In this paper we wonder how we can understand the meaning of knowledge in contemporary surveillance practices. It is our aim to contribute to the academic and societal debate about surveillance in the information society by illuminating several underlying assumptions in the discourses of the control state and the social state. Consequently, we propose an additional approach in which we focus attention on the concept of the precautionary state. In this paper we ask the following questions:

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- What is the meaning of knowledge in the discourses of the control state and the social state?
- What positions do governments and citizens predominantly have in each discourse?
- What problems regarding surveillance are illuminated in each discourse?
- What are the characteristics of surveillance in the precautionary state?

Our contribution has the following structure. In the first section we place the discussion about surveillance in the information society in the context of the debate on democracy and informatisation. The second and third sections consecutively cover surveillance in the control state and the social state. For each discourse we research the meaning of knowledge and the questions that arise as a result. We explore both discourses by means of both a theoretical and a narrative empirical exploration. Theoretically, we look for the ideas that form the foundation of each discourse. The control state discourse is traced back to Foucault's interpretation of Bentham's panopticon as a metaphor for the all-seeing and all-knowing state. The idea of the social state can be explained as a consequence of changing social interaction. Subsequently, we illustrate the theoretical discussion by means of the semi-fictional stories about Mrs. Smith. While travelling in the control state and the social state she is confronted with ANPR, intelligent traffic systems and citizen tweets. These stories are semi-fictional, because the foundation of the outlined technological possibilities and applications can be found in empirical research and secondary literature study. The following discussion in the fourth section of this paper concerns surveillance in the precautionary state. We argue that the insights offered by the discourses of the control state and the social state are in a number of respects insufficient to adequately interpret contemporary surveillance. We conclude our paper by briefly reflecting on the three perspectives and giving suggestions for further research.

Orwell and Athens revisited

The discourses of the control state and the social state have important roots in literature that appears towards the end of the 1970s about research into the relationship between informatisation and democracy. In the edited volume *Orwell and Athens* Van de Donk & Tops (1992) provide an extensive overview of this body of literature. The title of this volume points to two opposing academic positions regarding the meaning of informatisation for our democracy. The Orwellian scholars expect the state to use the ICT revolution to strengthen its power and control over citizens. The Athens scholars on the other hand foresee a society in which, through ICT, citizens will be better able to let their voices be heard. In 2010, these two extreme positions still inspire the academic and societal debate about the information society. Orwell arises through applications like Automatic Number Plate Recognition (ANPR) where data about passing vehicles are stored in police databases. Modern Orwell appears in literature as 'surveillance state'³ or 'control state'⁴. Contemporary Athens manifests itself as a social state in which citizens participate in the public debate through web 2.0 applications such as twitter and blogs. The academic debate here concerns the democratic possibilities and limitations of web 2.0 and the user-generated state.⁵

Van de Donk & Tops (1992: 62) conclude in their literature review that one can distinguish both a vertical and a horizontal perspective. Scholars using a vertical perspective mainly focus on the power relation between government and citizens. Literature written from a horizontal perspective can be understood as a reaction to the 'one-sidedness of vertical literature'.⁶ 'This second course in literature emphasizes the process of deliberation between citizens and their

mutual connections. The dominance of the discourses of the control state and the social state express a continuation of this dichotomy in literature.⁷ We can establish that the discourse of the control state has dominated surveillance theory for a long time. The horizontal perspective represented in the discourse of the social state perspective, however, is steadily entering this scholarly field. In the domain of surveillance studies it is explicitly expressed that surveillance practices shouldn't solely be studied from the perspective of the control state.⁸

The Dutch societal debate about ICT-enabled surveillance reveals the presence of both discourses as well. The discourse of the control state seems to be even more dominant here than in the academic debate. The media mainly report about the collection of personal data by the authorities in relation to privacy issues.⁹ The growing prominence of the Dutch Data Protection Authority CBP in public and political debates also indicates a growing power of the discourse of the control state. For the time being the discourse of the social state only marginally appears in the societal debate. The democratic (im)possibilities of the new media seems to be more of a given than an issue for discussion. An exception is made for Royal 'corrections' of information on Wikipedia.¹⁰ In 2007, in his polemic book 'the cult of the amateur' Silicon Valley insider Andrew Keen tries to instigate the societal debate about objections towards web 2.0. So far, this hasn't resulted in major shifts in the societal debate about surveillance. For now, the discourse of the control state appears to deprive the social state discourse of most of the attention.

We will now enter the control state to see how ICT- enabled surveillance manifests itself.

Surveillance in the control state

'BIG BROTHER IS WATCHING YOU'.¹¹ We have arrived in the control state where we, as citizens, need to watch our steps. We cannot demonstrate deviant behaviour. 'They' will notice. They have wire taps, cameras and other sensors at their disposal to detect whether we act in a deviant manner or not. In the contemporary information society surveillance is ubiquitous. We may even speak of a surveillance society¹² in which surveillance technology is connected to nearly all aspects of everyday life.

The control state as laid out by George Orwell (1949) in his novel *1984* constitutes a powerful nightmarish image which will make anyone think: 'we may never let this happen'. The story of a society in which citizens, knowingly or unknowingly conform to the will of the state has several appearances: from 'surveillance state',¹³ and 'control state',¹⁴ to 'panoptic state'.¹⁵ The famous Big Brother slogan, which was mentioned above, captures 1984's reader immediately. Throughout the years, his phrase has become stronger rather than weaker. It has become the adagio of the control state discourse. Like in Orwell's novel it is both a deterring warning and a representation of how the control state functions. Foucault's philosophical reflection on Bentham's panopticon has further inspired the control state scholars. It becomes clear from both Orwell's and Foucault's work that the knowledge or lack thereof that state and citizens have about each other is crucial for the control state to work. What does the state (not) know about citizens and what do citizens (not) know about the state? What is the meaning of information and knowledge in the control state?

Information and knowledge in the control state

In the control state Jeremy Bentham's brick panopticon is transformed into an electronic superpanopticon.¹⁶ The physical watch tower has been replaced by a data centre and the prisoners' cells have become virtual identities. The core principle of a knowledge asymmetry upholds in the electronic version and displays two elements. First, there's still a division between those who are watching and those who are being watched. 'Each individual [...] is seen, but he does not see; he is object of information, never a subject in communication'.¹⁷ In the control state it is the government who watches and the citizens who are watched and not the other way around. Criminal investigators can trace citizens by means of their mobile phones and camera surveillance can serve to keep an eye on the public in the city centre. Citizens, however, do not have real-time GPS-data at their disposal to check whether police and medical teams react fast enough when an accident is reported. Through her role of 'the watcher', the government knows much more about the behaviour of citizens than the other way around. A second element of the knowledge asymmetry is that the government knows when she is and when she is not watching. Citizens can only take a wild guess whether someone is actually present in the virtual watch tower. Are the traffic cameras on or off today? Is someone listening in on my phone conversation are not? This unequal knowledge is essential for the mechanism of discipline to work. Knowledge is a means of power for the government. 'Hence the major effect of the Panopticon: to induce in the inmate a *state* (emphasis added) of conscious and permanent visibility that assures the automatic functioning of power'.¹⁸ Those who are under surveillance conform to the administered norms, because they may always be checked upon. So, just to be on the safe side, let's refrain from speeding and avoid the word 'bomb' on the phone.

Before discussing the knowledge which is important in the control state, we point to a principle in Bentham's panopticon which doesn't return in the electronic superpanopticon. This concerns the lateral invisibility of the inhabitants. Whereas in the brick panopticon individuals are separated by the cell walls, this cannot be realized through virtual walls. This constitutes a weak point in the mechanism of the electronic superpanopticon, because, 'this invisibility is a guarantee of order. [...] There is no danger of [...] bad reciprocal influences'.¹⁹ We will see that advocates of the social state discourse claim that the mutual visibility of citizens is enlarged by ICT, having consequences for the power relations. This is an important point of criticism on the control state discourse.

Despite this dent in the panopticon machine, the ICT-version is called a superpanopticon in literature. This fact can be attributed to the amount and nature of the knowledge which makes the control state function. ICTs enable the government to generate more and different knowledge about citizens than before. Deviations to the norm can be assessed quicker and with greater ease, because surveillance in the control state goes beyond literally 'watching over'.²⁰ Nowadays, it is more about collecting and interpreting data. Even visual input, like pictures of license plates, is now transformed into data which can be modified further via software.²¹ ICTs therefore mean more than just making stronger the guard's senses (a camera sees and remembers more than a guard). ICTs transform the senses through its functions of calculation and analysis. The knowledge government desires to have about citizens, who deviates in what way, can be obtained in more ways than ever. The electronic superpanopticon transcends the traditional boundaries of place, time and human perception. No longer can we speak of one watch tower. Now, several towers exist which are interconnected by ICTs. 'If the constitution forbids us from spying on our own citizens, never mind, we can get the neighbouring government to do it for us and exchange data'.²² For

citizens, surveillance in the control state means that their own and other governments are able to check up on their past and present behaviour.

Why is the image of the control state a deterring one for so many? This particularly has to do with the position citizens are placed in as a result of the knowledge asymmetry in the electronic superpanopticon. In the control state citizens know two things: they know the norms they should abide and they know they could be checked upon obeying these norms anytime and anywhere. This mechanism places citizens one-sidedly in the role of subjects of the state, depriving them the opportunity to fulfil other citizen roles. They have no knowledge of the norms the state should abide or the services they could claim as clients of the government. Nor do they know how the norms imposed upon them have come into being or how to influence this process by means of elections or interactive policy making. Therefore, they can't be citizens of the state either. The absence of the knowledge and possibility for citizens of being clients or citizens places all power in the hands of the state. The state controls and disciplines. Consequently, a central issue regarding surveillance in the control state is how the state's power can be controlled and checked upon. Next to the focus on checks and balances, the right to privacy is a prevailing issue in control state literature. In the words of surveillance guru David Lyon: 'in the case of the Orwellian and the panoptic imagery for capturing what surveillance is about, the language of privacy has popular cachet'.²³ This is for example demonstrated in the work of Bannister:

A traditional limitation on the power of the state to invade privacy was that there were many of us and few of them. It seems unlikely that technology will overcome this limitation in the immediate future, but there is no reason, in theory, why it should not. If and when it does, the panoptic state will become a reality.²⁴

We can see how citizens may experience the control state in the following story about Mrs. Smith.

Mrs. Smith experiencing surveillance in the control state

Mrs. Smith commutes everyday. After a long day of work she steps into her car. Off to home nice and quick and then a long night of completely nothing. Her husband will take care of dinner. The only thing she'll have to do is decide whether she will take a bath First and watch Sex and the City after that or the other way around. Her contemplations are roughly disturbed by a phone call from her husband. 'Hi dear, I'm a bit late...will you fetch the children from day care?'. Mrs. Smith sighs and answers in a grumpy fashion: 'You always go like this. Never responsible.. Can't you ever be ready in time?'. Before Mr. Smith can respond to his wife's tirade, Mrs. Smith hesitantly adds: 'I may get in trouble by all of this, you know. I mean, one never knows whether they are watching. I may as well be caught this time'. 'I'm sure it won't come to that', Mr. Smith replies scornfully. 'Just do it, I'll make it up to you this weekend'. Still the whole thing doesn't feel right to Mrs. Smith. She knows about the surveillance checks. She knows about the police and tax authorities working together to check lease car drivers on private usage. How they do this exactly, she doesn't know. Maybe they use those cameras hanging over the road. An acquaintance of her neighbour had been caught driving her lease car to the IKEA sales night. They had been monitoring her for a while and were able to tell her in great detail what she had been up to. Apparently, she had driven up to IKEA at least four times and also once to the amusement park. Mrs. Smith was terrified when she heard this story. If they were able to trace that acquaintance, surely they were able to do that to her too. The question is whether they will right now. If she makes the decision right

now to deviate from her normal route for the fourth time this month to pick up the children, it might trigger the control police. While thinking about all of this she notices cameras hanging over this road. Would they be switched on? What exactly would they register? Had they been there the last time? O no, now she’s exceeding the speed limit. She probably won’t be able to escape from a huge fine. She has no idea she should fear something far worse.

Meanwhile, in the ANPR data centre of the local police force, Agent Green is busy working. Contently, he observes the activities around him. One safety alarm after the other goes off. His colleagues are eagerly responding. What a fantastic system it is and how proud he is to be a part of it. On his computer screen a notification pops up: ‘speeding > 50 km/h’. That car needs to be detained. Green signals a motor constable and checks up on the car in the system so all relevant information will be available upon apprehension. To do so, he first logs onto the database of the national vehicle authority RDW. Here, he can find the name of the person registered with the particular license plate. Then he uses the name and license plate to search police databases and partner databases. Quickly, he finds out the car is registered with a lease company and already has a virtual attention flag from the tax authorities. ‘This is probably another IKEA-customer’, Green thinks. Before even communicating all of this to the motor constable, a code red pops up on his screen. Something bigger must be the matter. There’s a correlation with home burglaries?! Green continues to click on his screen and has a look at a map of the region displaying locations and times of eight burglaries committed over the last month. The second and third map data layers reveal that time and place movements of both Mrs. Smith’s car as her cell phone are correlating with the burglaries. ‘She may come and explain all of this to us’, thinks agent Green. Quickly, he recalls the motor constable. Some heavier machinery is needed here. ‘Soon, we’ll pay this lady a little visit’ he triumphantly utters to his colleague.

‘Can I really do this? After all, she is the mother of my children. Well, better her than me of course. That’s what Fred told me when we started the whole thing. When he asked me whether I wanted to make some extra money, I had my doubts at first. Breaking in is illegal, even when taking stuff from rich people who probably won’t miss it anyway. When I had gotten past this feeling, everything worked brilliantly of course. Such a pity it all has to come to an end soon. I’ll sure miss that extra money. But how smart was I when taking her car? Lucky for me, she always sleeps very soundly leaving her cell phone on the night stand for me to grab. Well, they’ll probably come and get her one of these days.’ Mr. Smith writes in his diary.

The table below summarises the core principles of the control state discourse.

Table 1 *Characteristics of the use of knowledge and information in the control state*

Access to and division of knowledge and information	Possible application of knowledge and information	Citizen image	Government image
Knowledge is power and as such divided asymmetrically	Discipline and control	Subject	Autonomous, unlimited and powerful

We now leave the control state to experience surveillance in the social state.

Surveillance in the social state

What a delight, we have arrived in the social state where as citizens we can express ourselves however we like and keep each other up to date on all important developments. Here, we're free of the burden of the control state. Even more so, citizens can anticipate the state's behaviour and sometimes push her in a more active role. What they say matter in the world of politics and administration. Government responds to the sentiment that is loudly and self-consciously expressed by citizens through all channels available to them. And all of this is realised thanks to the democratic potential of ICTs.²⁵

In some respects the social state offers a more agreeable society to live in than the control state does. Here, citizens aren't confronted with a controlling government checking up on all of their digital and physical ways. They're also free to express themselves online in whatever way that pleases them. Government is aloof or a more or less equal partner. Does this mean that surveillance doesn't exist in the social state? The concept of surveillance barely exists in the story of the social state, while it does play an important role. We will see that the implicit presence of surveillance can be understood when looking at the function of knowledge in the social state.

Information and knowledge in the social state

Whereas in the control state citizens are prisoners of the electronic panopticon, in the social state they're able to build virtual bridges. These virtual connections arise, not only among citizens but between citizens and government as well. The virtual watchtower, which kept the government invisible in the control state, has disappeared. Government now increasingly show themselves to citizens, for example by letting public officials appear on online forums. At the same time, citizens become more transparent too by expressing themselves in the virtual world. They tweet, blog and are always connected through their mobile phones. The citizens of the social state use ICTs to advertise themselves, to have fun and make social connections. While the discourse of the control state has no room for knowledge accumulation through communication among citizens or between citizens and government, this has acquired a firm place in the discourse of the social state.

Citizens share knowledge about others and themselves through the data clouds they increasingly produce.²⁶ An important question in the discourse of the social state is how the value and reliability of community-generated knowledge can be assessed and guaranteed. Moreover, what implications does this type of knowledge have for surveillance? Two competing perspectives can be distinguished here.

Pessimists claim that people will share the biggest nonsense with the world driven by an 'infinite desire for personal attention'.²⁷ Other parties present in the public space, citizens, government or experts like scientists or journalists, will not make corrections. Surely, it is anyone's opinion which counts. The socially expressive citizen considers the freedom to express that opinion loud and clear to be a great good. Surveillance becomes problematic, because the social state is saturated with an extreme relativism of values and knowledge. The only values which appear to be shared broadly concern autonomy and individuality. Having

an opinion, not so much the possession of knowledge seems to be a sufficient condition to let your voice be heard.

Optimists on the other hand have faith in ‘the wisdom of the crowd’ to always correct false information. Postmodern surveillance²⁸ or surveillance 2.0²⁹ manifests itself by the possibilities that ICTs offer for ‘naming and shaming’ and ‘learning by linking’. In the Netherlands, for example, there are two websites for people to report other people’s inappropriate driving. The website ‘asocial road behaviour’ enables road users to fill out a form about behaviour like speeding or tailgating. This form is then forwarded to the police, who ‘will then confront these road hogs with their asocial driving behaviour’.³⁰ The website ‘safety together’ functions in a different way. Here, road users can upload information on conspicuous driving behaviour onto a GIS-application. At the same time, they can see whether any reports have been filed about them. All user-generated notifications are displayed on a map of the Netherlands for the online community to see. These examples demonstrate that surveillance in the social state leaves little room for the government. On the first website the government does play a mediating role, but this is merely a reactive one. The second website, however takes citizens’ capacity for self-correction as a starting point. By publicly addressing each other about undesired traffic behaviour, citizens are to be stimulated to drive safely. In this way, surveillance becomes reciprocal.

Figure 1 *The ‘safety together’ website: www.samengeveilig.nl*³¹



In the social state it seems to be the case that, unlike in the control state, citizens have ample opportunities to put forward their opinions. As long as the public space doesn’t become a cacophony of incoherent noise, citizens can even shape society themselves by means of postmodern surveillance. As such, they become citizens, active citizens, in their relationship to the state. Challenges for the discourse of the social state are to assess the political and administrative meaning of the diverse types of communication and the knowledge that is generated through them. On top of this, the meaning and significance of politics and administration is under pressure in the social state. Scholars in this discourse prudently experiment with these issues.³²

We will again take part in the adventures of Mrs. Smith, who is now going to experience surveillance in the social state.

Mrs. Smith experiencing surveillance in the social state

Mrs. Smith commutes everyday. After stepping into her car this evening, she turns on her navigation device and waits a moment until her smart phone connects with the radio. Music turns on and Mrs. Smiths drives off. The navigation system expects her to be home in 56 minutes. This gives her enough time to tell her phone to call her husband. ‘Hello darling, how are you? I’ll be there in an hour. Will you cook something nice?’ Mr. Smith is running late. ‘Will you be able to pick up the children?’ Her husband replies negatively and tells his wife it may take him a while before he finishes work. If she goes and picks up the kids on her way home, he’ll try to have dinner on the table. Okay then. ‘I will have to cross town...’, is going through Mrs. Smith’s mind.

Meanwhile, she’s enjoying a song which has been selected by the online music service based on her listening behaviour. Then the music gets interrupted. The radio reports a traffic jam near Rotterdam. For now, Mrs. Smith can continue driving and hits the throttle. She needs to arrive at day-care at 7. Otherwise the sitter will rightly get mad at her. In between the traffic reports, Minister Eurlings of Transport debates his road pricing bill in parliament. Members of the Royal Dutch Touring Club (ANWB) will be consulted through an online questionnaire! Mr. Smith sends a text message. He’s not going to manage dinner either. In the mean time, Mrs. Smith has gotten stuck in traffic. Quickly, she sends out a tweet to her friends: ‘men! Except for that Eurlings chap, he does know how to listen. Appears to be unmarried... ☺’. She then starts the ‘deliver@home’-application on her phone. An overview of restaurants covering her postcode area appears onscreen. ‘Hmm, Italian food or perhaps a ‘delivery-bear’ special?’.

Then her friend Elise calls. She has noticed Mrs. Smith being stuck in the traffic jam. ‘O yes, I can see you now. You’re about one and a half kilometres in front of me. Do you happen to see anything of this accident? An eyewitness just twittered that one of the drivers was probably drunk. He was swaying about right before he hit that other car. Oh, things are starting to move, are they? Okay then, let’s meet up soon for a nice evening of Sex and the City or some ooh-ing and aah-ing for Mr. Darcy!’ . Twenty minutes later, Mrs. Smith has gotten out of the traffic jam and arrives just in time at the day-care centre. ‘Sorry I’m a bit late. There was a drunk driver on the way over here’. She quickly helps the children into the backseats of the car. Upon her arrival at home a guy in a bear suit stops at her front door. ‘Yay, the delivery-bear special’, the children shout. In exhaustion, Mrs. Smith lets herself fall onto the couch. The mobile tv on her phone shows a woman crying. She tells the reporter her husband would never drink and drive. He had been struck by a hart attack. Mrs. Smith feels embarrassed about believing the tweet she read earlier. Later that night she receives a tweet about Minister Eurlings: ‘In parliament he has suggested to start using twitter for notifications about road works and traffic delays’.³³

In conclusion of the discourse of the social state, the following table lists its main characteristics.

Table 2 *Characteristics of the use of knowledge and information in the social state*

Access to and division of knowledge and information	Possible application of knowledge and information	Citizen image	Government image
Ubiquitous and of relative value	Self-expression and at best self-correction	Citizen	Reactive and reluctant

We continue our journey to the precautionary state in curiosity of the kind of surveillance awaiting us there.

The precautionary state as an additional approach

The widespread discourses of the control state and the social state offer specific insights in the role of knowledge and information in the (im)possible surveillances relations between government and citizens or citizens between themselves. Still, the question rises to what extent the ideal types of Orwell and Athens offer adequate means to interpret contemporary surveillance practices. We argue for an additional approach which does more justice to the complex and more reciprocal relation between government and citizens in our late modern society. This approach is centred around the precautionary principle, which was previously described and criticised in the Dutch context by Pieterman (2008), Van Gunsteren (2008) and Trommel (2009).

The precautionary principle can be characterised as a product of elements from the risk culture and blame culture. In the blame culture, which was dominant until the arrival of collective arrangements in the welfare state, individual responsibility in the tragedy of life played an important role. As a citizen you were responsible yourself to prevent disasters and avert discomfort. In the risk culture, which became more dominant towards the end of the 19th century with the rise of the welfare state, collectivisation was a key word. Questions about blame and responsibility moved from the individual to the societal system. In that system risks and remedies were mainly viewed from the perspective of cost-benefit analyses. Disasters and discomfort perhaps could not be prevented, but could be insured. Individual responsibilities were changed for all sorts of collective, often publicly forced, arrangements which functioned as a safety net. Now that the ideal of the welfare state has been under pressure for some time, an orientation towards precaution in the relationship between government and citizens appears to be emergent. In this orientation, responsibility and blame are again important elements. However, not merely the victims of disasters are reprehensible. Citizens have learnt that preventing harm isn't their individual responsibility.³⁴ Now, particularly experts, like civil servants, climate scientists and bankers, appear to have influence on the complex and unpredictable societal system. As a consequence, they are the ones carrying the moral responsibility for its functioning.

Information and knowledge in the precautionary state

Such an orientation has several implications for the role and the use of information and knowledge in the precautionary state. Generally, it can be stated that the information or knowledge generated by all sorts of experts needs to be beyond any doubt and preferably

sustain the test of time. A less tenable political argument is that people would have acted differently had they known what they know today. It's impossible to formulate a policy based on this statement. In the eyes of politicians longing for credibility, this makes the government untrustworthy. Politicians, for example, no longer accept 'incorrect' climate statements from scientists. Glaciers melting more slowly than expected? It's a disgrace! Regarding the weather, citizens grumble about both unnecessary and lacking weather alerts. In case discomforts or disasters do strike unexpectedly, neither politicians nor citizens accept excuses based on a cost-benefit analysis of risks and controlling these (like in the risk culture of the welfare state). Every expert failure is blameworthy in principle. This leads to a tendency in which the need to know becomes the leading adagio, resulting in the collection, categorisation and analysis of data. Calamities and inconveniences mustn't just be predicted, but prevented as well. The need to know and the urge to intervene are never far away. These aren't motivated out of the need to perfect the panopticon and discipline citizens. Rather, government aims to protect and serve citizens and society.

In the discourse of the precautionary state, experts are tempted to gather more and more information. As a result, they can acquire useful knowledge in the interest of all. Moreover, this enables them to prematurely kill risks and avoid possible blame. More information enables them to truly complete their role as experts. In the eyes of experts, information can, or even must, be gathered with more focus and detail to enable effective and meaningful actions.

Consequently, the precautionary state demonstrates a number of developments. As has been mentioned earlier, there's a strong inclination towards intervention. Even though citizens aren't viewed as subjects in need of discipline, the precautionary principle does bring about an intervening government. This government mainly wants to responsabilise in order to control potential risks and shut out disasters and discomfort. Experts feel the obligation to educate citizens and protect them from external danger or themselves. This results in extreme forms of surveillance, just like in the control state. Do you happen to embody a combination of risky characteristics? You will then be 'flagged' in the index and may need some extra attention. Moreover, the growing possibilities of capturing and disclosing large amounts of data make surveillance more effective. Not only does the government take a more profound look behind citizens' (virtual) front doors, but does this sooner than ever before. Of course, the precautionary state always has the best intentions in mind. The pre-cog phenomenon in Steven Spielberg's movie 'Minority Report' (2002) seems less far away.

Unlike in the control state, there's no one-sided, asymmetrical power relation between citizens and government (experts). The assessment of knowledge can sometimes be a heated affair. In this matter, the discourse of the precautionary state shows resemblance to the social state. However, knowledge is no longer solely judged, based on her own merits. The experts involved are closely watched. Anyone has access to information and knowledge, which doesn't necessarily imply that everyone equally possesses the ability to make a meaningful assessment about these. The judgement made by citizens, sometimes via the media, about situations and the experts involved, is a crucial issue in the precautionary state. As a result, those experts' personal credibility becomes more important. This issue doesn't merely involve questions about effectiveness, but about integrity and trustworthiness too. Citizens may even call experts to account. Perhaps, this doesn't always happen in a formal way, but citizens have means to publicly judge the credibility of experts. We see this, for example, in the case of the bombing that had almost happened on board of a flight between Amsterdam and Detroit. In a Dutch national newspaper the Dutch National Coordinator for Counterterrorism was asked to explain personally how the security checks at Schiphol Airport had functioned.³⁵ This

accountability mechanism gives citizens a power position they didn't have in the control state. Surveillance therefore functions in two directions. The government's urge to intervene can partly be understood as a result of grown-up citizens having the possibility to call them to account and judge their credibility. A cool analysis by experts and the warm involvement of citizens apparently become very much intertwined in the precautionary state.

The position of citizens as objects of interventions also changes in the precautionary discourse. In the discourses of both the control state and the social state the image of the citizen is quite clear. In the control state, all citizens are equally subjects of the state. The disciplining surveillance doesn't discriminate. Anyone can be watched. In the discourse of the social state, citizens are equal too. Anyone can manifest him or herself as a citizen through social media and consequently become part of postmodern surveillance. We detect a radical change regarding the image of the citizen in the precautionary state. Difference replaces equality as the leading principle. On the one hand, there's a group of citizens demanding precaution. These are citizens who worry about all the risks present in society. They demand government actions to exclude these risks. The dominant position of the media in the public domain enables this group of citizens to call experts to account about their precautionary tasks. These citizens at least have the possibility to cast doubt on the credibility of these experts. On the other hand, stands a group of citizens forming the object of precaution. These are the 'risk citizens' deviating from the 'normal' Dutch citizens and requiring normalisation or responsabilisation. 'For your and my safety, the safety of 'us', it is therefore necessary to observe and classify them, and possibly intervene before evil can take place', is Van Gunsteren's observation.³⁶ This ambiguity places government in an awkward position. It's impossible to equally respect the rights of both groups of citizens. The demanding citizens force the government into precautionary measures against the risk citizens, who, in turn, require justification for the unequal treatment and invasion of their privacy. Van Gunsteren rightfully observes a danger for democracy in the precautionary state. 'Risk citizens are citizens too. Let's then treat them as such'.³⁷ Precaution can only be legitimised democratically if demanding citizens form a majority, and risk citizens a minority. This, however, is an uncertain criterion. It is everything but clear who exactly are these demanding citizens. In addition, the profile of the risk citizen is very sensitive to change. Whoever is a demanding citizen today, may be a risk citizen tomorrow. Surely, that decision is still up to the experts.

Mrs. Smith experiencing surveillance in the precautionary state

Mrs. Smith commutes everyday. After stepping into her car this evening, she turns on her navigation device and drives off. The navigation system expects her to be home in 56 minutes. This gives her enough time to tell her phone to call her husband. 'Hello darling, how are you? I'll be there in an hour. Will you cook something nice?' Mr. Smith is running late. 'Will you be able to pick up the children?' Her husband replies negatively and tells his wife it may take him a while before he finishes work. If she goes and picks up the kids on her way home, he'll try to have dinner on the table. Okay then. 'I will have to cross town...', is going through Mrs. Smith's mind. Without Mrs. Smith's interference, her car's route registration system detects the little detour. The administration will be updated automatically. The system sends all route data to the lease company in a format which also pleases the tax authorities. On the radio, the head of the counterinfection centre of the National Institute for Public Health and the Environment is elaborating about the fact that the flue vaccination really won't have negative effects. According to him, a thorough and large-scale analysis demonstrates exactly that. 'Until the start of February, more than 36 million Europeans were vaccinated.

Initially, 155 deaths were reported. Only four turned out to be unexpected. In all other cases, either a clear cause was found or other diseases or age were of influence. And please note: Historical figures show that out of those 36 million vaccinated people everyday 1000 would have died anyway’. ‘Hmm’, Mrs. Smith is thinking, ‘I can’t really understand all of this, but the other day, this fellow showed up on the Pauw en Witteman talk show and made quite a reliable impression’. The navigation system reports the route is being adjusted to the current traffic situation. Phone signals from other road users and dynamic speed indicators indicate the traffic is standing still further down the road. ‘Hmm, all right, but the traffic jam on the A16 near Rotterdam is probably unavoidable...’. So far so good, for now, people keep on driving. Meanwhile, a radio report reveals the US government is considering making a black box mandatory for each car. Apparently, several cars had gone loose by themselves. Driving between Ridderkerk and the Van Brieneoord Bridge Mrs. Smith discovers she’s right after all. There’s an accident causing a traffic jam. Luckily, her navigation system reroutes her onto the A15. She can continue driving, which is for the better. She needs to be at the day-care centre at 19.00 hours, otherwise the sitter will get angry again. Mrs. Smith knows there are no fixed speed cameras on this part of the route. Furthermore, mobile checks are usually quickly added to her navigation system by other users. The risk of getting a fine is small, so she hits the throttle a bit more.

For this third discourse about surveillance in the information society we summarise the essential points.

Table 3 *Characteristics of the use of knowledge and information in the precautionary state*

Access to and division of knowledge and information	Possible application of knowledge and information	Citizen image	Government image
Mainly generated by experts, but widespread accessible	Prevention and risk reduction, normalisation and responsabilisation	Both demanding and criticising, and risk factor	Active and intervening with the best intentions

Concluding remarks

This paper has demonstrated that each of the three discourses emphasises different aspects of surveillance and poses different questions. The questions which are relevant in the discourse of the precautionary state, in our view, offer a valuable addition to the issues put forward in the first two discourses.

In line with the discourse of the precautionary state we make the following suggestions for further research:

Principles of the precautionary state

- How do the principles of the precautionary state relate to those of the democratic constitutional state?
- Which criteria underlie the state’s urge to responsabilise and normalise?

Thriving forces of the precautionary state

- What mechanisms underlie government's precautionary policies?
- Who are the demanding citizens and how do they manifest themselves?

Consequences of the precautionary state

- What does the precautionary state mean for trust between governments and citizens?
- How can we assess the trade-off between privacy protection and the fruits of data collection in the precautionary state?

Position of the 'risk citizen'

- On what grounds does someone become a risk citizen?
- How can a risk citizen still function as a 'normal' citizen of the state?

Position of 'the expert'

- How can experts (continue to) act with credibility in situations where enormous reservoirs of systematically collected knowledge aren't always enough?

The aim of this contribution was to point out the danger of fixating on the power hungry government as a threat to the privacy of citizens on the one side and the democratic (im)possibilities of contemporary knowledge sharing on the other, however important these issues are. We propose for future research into surveillance in the information society to address the urgent questions and dilemmas the precautionary state poses.

Notes

¹ This discourse can be recognised in the discussion taking place in the Dutch media in January and February 2010 about the storage of license plate data in relation to infringement of privacy.

² Burgernet (Citizen Web) : A Dutch police project where citizens by means of a sms are activated as eyes and ears of the police.

³ Taylor, Lips & Organ (2009):

⁴ Vedder, van der Wees, Koops & De Hert (2007):

⁵ Frissen, et al. (2008):

⁶ Van de Donk & Tops (1992): 62.

⁷ See for example the research papers presented in the e-government study group of the European Group for Public Administration: <http://www.tcd.ie/Statistics/egpa/> (11 March 2010)

⁸ Zurawski (2007):

⁹ See for example the discussion in the Dutch media about the new Dutch passport law: http://www.volkskrant.nl/binnenland/article1241861.ece/Privacy_ondergeschikt_in_paspoortwet (11 March 2010)

¹⁰ See the Dutch newspaper report by de Volkskrant of 30 August 2007 about princess Mabel and Wikipedia: http://www.volkskrant.nl/binnenland/article456625.ece/Prinses_Mabel_haalde_de_angel_uit_Wikipedia (11 March 2010)

¹¹ Orwell (1949): 2.

¹² Lyon (2007):

¹³ Taylor, Lips & Organ (2009):

¹⁴ Vedder, van der Wees, Koops & De Hert (2007):

¹⁵ Bannister (2005):

¹⁶ Lyon (2001): 328.

¹⁷ Foucault (1979): 303.

¹⁸ Foucault (1979): 303.

¹⁹ Foucault (1979): 303.

²⁰ Lyon (2007): 450.

²¹ van Ooijen (2009): 12.

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- ²² Bannister (2005): 76.
²³ Lyon (2007): 460.
²⁴ Bannister (2005): 70.
²⁵ See Edwards (2005): , Snellen (2005):
²⁶ Van den Boomen (2007):
²⁷ Keen (2007): 7.
²⁸ Homburg & Bekkers (2005):
²⁹ Meijer & Homburg (2008):
³⁰ Website ‘asocial road behaviour’: <http://www.asocialweggedrag.nl> (28 February 2010)
³¹ Website ‘safety together’: <http://www.samenveilig.nl> (28 February 2010)
³² For an elaborate discussion about the opportunities and threats of Web 2.0 see de Kool & van Wamelen (2008):
³³ Dutch newspaper report: de Volkskrant, 26 November 2009:
http://www.volkskrant.nl/multimedia/article1321168.ece/Eurlings_actuele_verkeersinfo_via_Twitter (14 March 2010)
³⁴ Pieterman (2008): 76.
³⁵ Dutch newspaper report: NRC.nl, 26 December 2009:
http://www.nrc.nl/binnenland/article2445969.ece/NCTb_Terrorismeverdachte_volgens_procedures_gecontroleerd (14 March 2010)
³⁶ van Gunsteren (2008): 174. (translation CvO)
³⁷ van Gunsteren (2008): 181. (translation CvO)

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