Article | Digital panopticism and organizational power

Jesper Tække

Aarhus University, Denmark. imvjet@hum.au.dk

Abstract

This article considers digital media with respect to surveillance and organizational power. It tries to combine concepts and logics from different theories to put together a framework with which to understand the current situation. It works with the systems theory of Niklas Luhmann in order to explain how power works in organizations, and Medium Theory to explain how norms in contemporary society are made inconsistent in relation to the current information situation provided by digital media. On this background this article tries to bridge the gap between the concept of surveillance and the concept of power in order to outline a neutral understanding of the monitoring of human activities. It is a theoretical article and its conclusions are analytical.

Introduction

Surveillance in organizations can be seen as something wanted by management to make everything more transparent and measurable, providing a fair type of organization in which many people would like to work. However, with recent developments in new media and software technologies which often offer opportunities for surveillance, one could also argue that for many organizations the decision to monitor comes as a by-product of the software they choose (Lyon 1994: 132).

Seen from Luhmann's (1979; 1990; 1999) perspective of power, however, one could argue that the result of surveillance is an increased emphasis on control over trust, and therefore surveillance is harming organizations. In this theory, power is seen as dependent upon trust, giving organizations their scope for creativity, innovation and high productivity, while control and mistrust is seen as leading to coercion and a poor scope for creativity, innovation and productivity. The question, then, is why organizations do monitor their members? One explanation is that management mistrusts their members and do not dare to take the chance of trusting them, no matter what advantages that would provide. Another explanation is that new digital media provide a new communication milieu, which actually at one and the same time both give management reason to monitor and the possibility to do it in new ways provided by the very same medium milieu.

According to medium theory, a new medium of communication undermines old norms by providing a new information situation, with the result that those norms now become unable to guide social behaviour (Meyrowitz 1985). This means that we now are in a situation where digital media have changed our communications milieu and that new norms must be established before a new state of equilibrium between information situation and social norms are developed. This calls for analysis of the new communications milieu, which in regard to this article means to analyse surveillance and power in organizations. Perhaps the problem can be framed as: organizations are threatened by networks like

Facebook stealing the time, loyalty and focus of their members, yet at the same time organizations have gained new tools for monitoring what their members do and say, and also to see where they are.

The article tackles this problem by presenting Luhmann's theory of power in relation to the new medium milieu, discussing problems of surveillance in regard to control and trust. It tries to build an understanding of how organizations can handle the monitoring of its members, provided by the new medium milieu, without harming the trust relation between management and members.

Surveillance – risk and trust

In Luhmann's theory *risk* means the internal questioning that takes place when deciding whether it is better to do one thing or another. In addition we have to consider *danger*, in which instant decisions either make no difference, or where you do not have have time to reflect upon the influence you might have through any particular decision. The difference is that, in the *reflection*, you can reflect upon and decide if you want to take a chance and run a risk, or not, but in the case of danger there is no such choice (Luhmann 2005).

Surveillance is also associated with various temptations. It seems to dangle control before us, the ability to observe and evaluate everything.[1] However, such thinking is fatally flawed, as it is doubtful that such a level of control is achievable, since control in itself means more complexity, i.e. more output that must be used as input and compared with what is desired. Furthermore, one cannot control everything because representations on a scale of 1:1 would paralyze any organization. As a result it must be selected what the organization is to keep under surveillance, which again means increased risk. There is a risk associated with assessing whether something is worth monitoring or not: a risk for measuring something unimportant, or something that is harmful to measure, and at the same time a risk to not measure something that later shows to be important. Added to these problems are problems related to the interpretation and drawing of consequences from the parameters kept under surveillance – which once again involves risk.

The new digital communication media can be observed in ways that re-challenge the space metaphor. Meyrowitz's classic text, *No sense of Space,* gains new meaning with the advent of digital media for communication and observation. Applying the distinction between online/offline (Orgad 2007) we can, if we reserve the concept offline only to describe communication in the oral medium, say that this medium is the only one where communication does not leave any traces. In contrast, with digital media it is always possible to store and retrieve communication (Tække 2006). Even without a specific surveillance programme in place, we run the risk of being under surveillance when we communicate using digital media. In this regard we have jurisprudence (Blume 2007), but there are also norms for it. Meyrowitz's (1985) proposal was that by developing Goffman's (1990) theory of role-play etc. in social situations, one can describe and explain the new social situations made possible by the new media of the 1960s. In this way he described equality between sexes, ages, sexual orientation etc. as a result of the 'surveillance' made possible by the electronic media – one example being the opportunities offered for the masses to observe social information through the medium of television, to which they would previously have had no access. The opportunities afforded for individual surveillance by digital media are, however, rather different. At the societal level this form of surveillance has been spreading in the West following the September 11th (2001) terror attacks in New York (Simon 2005; Lyon 2007). More recently, digital surveillance has expanded beyond the monitoring of terrorist and criminal activities into the commercial arena. Take, for example, the logging of our internet activities – information which is then used to send us targeted advertisements.

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[1] See Luhmann (1990: 101) for a discussion on the concept of control.

Many people do not care much about surveillance in the societal domain. They have *trust* in their state system and believe that surveillance is only a problem for criminals. Perhaps society runs a risk, which is a danger for its citizens. Without trust social systems do not function (Luhmann 1979). In Luhmann's (1979; 2000) terminology trust is *reflected* whereas confidence is not. *You run a risk trusting others to act in special ways*. In contrast to the societal level we also have the organizations we work in, are educated in, are inmates in, or are patients in, and here we are not so trusting when it comes to surveillance. As employees in organizations the distinction between private and public does not protect individuals (Introna 2000). In organizations there are decisions about membership and if you decide to be a member then you are well on the way to gaining trust in the organization. The organization runs the risk of trusting you to benefit from the contribution that you make. At the same time, you, as a staff member, run the risk of surveillance in your bid to earn money and perhaps develop your career and yourself.

Organizations

From Luhmann's perspective organizations can be viewed as decision systems (Luhmann 2006), that is decisions are executed on the basis of decided and undecided decision premises (*ibid*.; Tække and Paulsen 2008; Tække 2008a). From this perspective decision-makers are seen as semantic tricks because only decisions can decide. In short if we decide to follow the communicative selections in a decision it becomes a decision (*ibid*.). Decision premises line up conditions for what is the correct way to take decisions, for who can decide over whom, and whom they must consult in order to make the decisions, or complain to about decisions (*ibid*.).

In scientific management this is spelled-out clearly with the use of surveillance in large bureaucratic hierarchies where everybody is kept under surveillance according to clear parameters that have been set to meet the desire for regular (rational) behaviour. Over time, the market has become more dynamic and differentiated, and this has led to organizations becoming even more complex. This form of organization has not put bureaucracy behind it; rather it has transformed bureaucracy to match the leaning organization (Paulsen 2008), the brain metaphor (Morgan 1997) and the open perspective (Scott 1998). What is common for all these contemporary business paradigms is that it is no longer expected that only one section of the organization 'thinks' for the rest; instead all members and all sections must learn, 'think' and decide for themselves, starting from what is their own understanding of what is the common good. This form of organization is not connected internally by a tight hierarchy but through a shared organizational culture. They do not demand Taylorism (scientific management), rather an approach to the members that is inspired by humanistic psychology with keywords like motivation, self-realization, trust and acknowledgement.

As mentioned earlier, we can describe organizations as communication decision systems, which produce and reproduce themselves in a system of decided and undecided decision premises (Luhmann 2006). Something is decided when A utters something, which produces an expectation to B, who complies with an action, which refers back to the produced expectation in a meaningful way (Luhmann 1995: 294). At the same time this is also the description of a power relation, because power according to Luhmann (1979; 1990), is a special code of communication, which makes it probable that B complies with A's communicative selection. Somebody does something because the communication is understood in the way that it is expected of him or her.

Surveillance and organizations

Surveillance is mostly discussed in literature according to George Orwell's *Big Brother* and Bentham's Panopticon in Foucault's interpretation. In Orwell's '1984' everyone is kept under surveillance both visual and auditorially. As a consequence of this everyone begins to see themselves as being observed and therefore behaves according to a set of rules. This is comparable with the situation in organizations, which keep their members under surveillance: the surveillance data about the individual can be compared with the organizational decisions about appropriate behaviours. Foucault in his *Discipline and Punish*

sums up the development of the big old-fashioned institutions in relation to surveillance, that is, for instance, how monasteries throughout the centuries have developed surveillance to ensure the monks worked and behaved as demanded: enclosure, partitioning, functional sites and ranks. Every monk must be at a special place at a particular time according to special schedules, in a certain position in a line of monks, doing special functions etc. (Foucault 1991: 141-145). Foucault finds the mega-symbol for surveillance in Bentham's panopticon, a special architectural arrangement that privileges one person to watch many inmates simultaneously. The panopticon is arranged with such ingenuity that the inmates do not know when they are under surveillance, which forces them to adopt a pattern of conformity.

> He who is subjected to a field of visibility, and who knows it, assumes responsibility for the constraints of power; he makes them play spontaneously upon himself; he inscribes in himself the power relation in which he simultaneously plays both roles; he becomes the principle of his own subjection. (*ibid*.: 202)

In the old style scientific management, the leader was quite visible and the hierarchy was obvious to the staff that knew who was the representative for the organizational power. At the same time production floors were arranged as a panopticon so staff could be kept under surveillance. In more recent times, the introduction of the open plan office means that it is no longer just the factory floor that is being watched but all the staff, and as such they know that they must work as if they were being watch all the time.

But what is it that these organizations are actually monitoring? Is it attitude, behaviour, efficiency, quality or quantity of executed tasks? The answer is that it can be any on of these parameters, or in fact all of them, that the management measures when they work with the results of surveillance. It is a matter of which decisions are made in specific organizations about what is monitored and how it is measured with which consequences. In the meantime, surveillance technology plays a role here, because surveillance often is a kind of bi-product of technology, especially of new communication media. There is a certain level of interplay between the decisions about what should be monitored and the technologies involved. In that respect we can observe technology as an actor in the network where the surveillance takes place.

Surveillance and technology
According to the American philosopher of technology, Don Ihde (1986), the world is multi-stable in regard to observation and perception. In one mindset a phenomena is perceived in one way, from one literal-mindedness, but the phenomena could as well be seen from another literal-mindedness with another result. From a polymorphic mindedness we can move to a level II and see that both possibilities are possible (*ibid*: 73). In later works, Ihde (1990, 2001) describes how technology works in what in Foucault's terminology could be called epistemology machines, which are technologies that in a culture stabilize our perception of the world, as if it could only be seen in one way. Ihde (2001) designates these *imaging technologies*. Examples are for instance the microscope, the telescope and equipment for navigation. According to this perspective technology is not neutral with respect to how we see things and therefore we must also take into account that the technology plays a role in the selection of what we monitor and how we interpret the results.

The French philosopher Bruno Latour (1990) shows how power is coupled to knowledge and how knowledge and science are dependent on *inscriptions*. Latour concentrates on the components in his definition of the concept of inscription and focuses his explanation on the invention of perspective and the printing press. The core concept is *immutable mobiles*. Latour (1990: 32) refers to Eisenstein (1983) and writes that immutability is ensured by the process of printing many identical copies, and that mobility is ensured by the number of copies, the paper and the moveable type. Before the printing press, knowledge always was temporary and local, but with the printing press knowledge could now be moved around in time and space. Another example on immutable mobiles is the European invention of the map based on geometry and coordinates. When the Europeans travelled around the Pacific Ocean they considered the

longitudes, latitudes and scale when drawing the perspectivistic maps of the islands they found. They then transported the maps home to Europe where they could be integrated as an organic part of their knowledge about the world. Because the inscriptions are based on geometry, perspective, are in scale etc. they can represent everything (even phenomena we cannot see), and present them via diagrams and columns, which can be reshuffled and recombined and incorporated in other inscriptions. Inscriptions provide optical consistency and are able to move information about things from their context so they can be interpreted under other conditions, since their logic is widely known and the method by which they transmit their knowledge is generally accepted. Immutable mobiles can be arrayed in cascades: 'files of files can be generated and this process can be continued until a few men consider millions as if they were in the palms of their hands' (Latour 1990: 54). For Latour, it is hard to overestimate the power that is gained by concentrating files written in homogeneous and combinable form.

> A man is never much more powerful than any other – even from a throne; but a man whose eye dominates records through which some sort of connections are established with millions of others may be said to *dominate.* (*ibid.*: 56)

Inscriptions are problematic since they harmonize heterogenic basic conditions so they determine our social structures and totalize our perception. If we take Latour's immutable mobiles into consideration in regard to digital media and surveillance it is clear that the effects of the inscriptions are intensified: the compatibility, the possibilities for representation, the calculation power, the speed, and the optical consistency etc. runs automatically, controlled by software. In this light, digital media and their software are not neutral actors in regard to surveillance. In contrast, they provide the spectrum through which surveillance is observed. With this in mind, critics of surveillance must focus on the harmonizing of heterogeneous basic conditions. As already mentioned in the section on risk and trust, it seems arbitrary what is selected for surveillance, and the idea of control is built upon an illusion. Now we can say that the illusion is built on optical consistency constructed via immutable mobiles implemented in computer systems.

If we combine what new media can provide in the way of possibilities for surveillance with decisions about what to keep under surveillance and consider the consequences then we have two consequences so far: 1) a panoptic consequence where members of organizations self-discipline; 2) a situation of surveillance where specific but arbitrary parameters are selected or are given by the used technology, as a measure for the usability of single members in the organization.

Surveillance and digital media

Roger Clarke (1994; 2003) has coined the concept *dataveillance* to describe the situation where we are monitored through the data we leave as traces when we use digital media. In this connection he also put forward the concept of the *digital persona* to depict the parallel identity drawn by our use of digital media and which is read by others as who we really are as a person and as a member of an organization. In line with Ihde and especially Latour, Clarke (1994) writes:

> As with any modelling activity, it suffers the weaknesses of the reductionist approach: individuals are treated not holistically, but as though a relatively simple set of data structures was adequate to represent their pertinent characteristics.

In this way dataveillance provides special risks since it not psychical, or even electronically providing surveillance of holistic individuals, but digital and selective, and therefore only provides a limited selection of data-traces of actions left by an individual in cyberspace. Furthermore this problem is intensified since the selected types of data might not capture an individual's core contributions to the organization, but instead focus on special actions, such as acts that the organization has decided is a violation of a rule, e.g. surfing on private subjects on the internet. The digital persona is like Latour's

inscriptions immutable: mobile, comparable, differentiable, and controllable. Just as the microscope works qua protocols, diagrams, columns, the digital media for surveillance work qua their programming for what to register and for how to compile their output. As Foucault (1991: 208) wrote about the panopticism: 'what are required are mechanisms that analyse distributions, gaps, series, combinations, and which use instruments that render visible, record, differentiate and compare'.

Albrechtslund (2008) put forward the concept of *participatory surveillance* to capture the idea of the digital traces we leave freely. Here the use of a social medium like Facebook provides a good example: people register in their 'Facebook Status Updates' not just what they do, but also where they are when. Also, pictures and statements uploaded onto Facebook can harm people in the present or later in their life in relation to their work, since the digital persona cannot be deleted but follow individual persons as a history of self-presentation. The human actor of surveillance is replaced with a computer system that constructs the public observable self independent of our present self-presentation: 'We do not produce our databased selves, the databased selves produce us'. (Simon 2005: 16).

Power

The paper now turns to the analysis of power in relation to surveillance and dataveillance. This section first looks to mediate parts of Luhmann's theory of power and then discusses the consequences of surveillance in this relation, ending with a conclusion on the overall relationship between surveillance and power in organizations.

Power as a symbolically generalized communication medium

Power is defined as a symbolically generalized communication medium (Luhmann 1979). This makes power comparable with other symbolically generalized communication media such as money, truth and right. Luhmann often gets around the other media to find functional equivalents while trying to find out and explain how power works. Symbolically generalized communication media are media, which make communication probable. Whereas language as a medium makes mutual understanding probable, and distribution media makes it probable that a message reaches its destination, the symbolically generalized communication media makes probable that communication succeeds (Luhmann 1995: 161). Communicational success occurs if ego follows alter's communicative selections, *by making the communicative selections a premise for his actions*. In this way power is a medium, which reduces social complexity since it solves the problem of doublet contingency in a functional manner. Contingency means that something is neither necessary nor impossible (1990: 156; 1995: 106). Power emerges when doublet contingency is experienced by both alter and ego; that is, when both the power-holder and the power-subject are free and can do as they please (1990: 156). The power medium's function makes it probable that ego takes alter's actions as a premise for his own actions (1999: 355), so alter's actions give occasion for ego's actions (*ibid*.: 337). As other symbolically generalized communication media, power reduces double contingency (1979: 111) and, with its origin in organizations, provides society with a number of advantages and must be considered as one of the preconditions for modern society (Luhmann 1979, 1990, 1999).

Power, coercion and the economy of power

Luhmann (1979: 112) locates *coercion* as the counter concept to power. Distinguishing between power and coercion makes it possible to describe power as a communication code. The power code reduces social complexity by eliminating the double contingency provided by the psychic systems in the surrounding world of social systems; it also provides the possibility, from each side of the distinction between power-holder/power-subject, of seeing the advantage in coupling to the power medium. Coercion gives no alternative, but power does. In other words, the ability to reduce double contingency is lost when power turns into coercion. The advantage provided by the symbolic generalization, where only

the selectivity of the partner is guided, gets lost when power turns into coercion (Luhmann 1979: 112). So power makes it probable that people freely choose to do what others tell them to do.

> Power loses its function of bridging double contingency in the same proportion that it approaches the character of coercion. (Luhmann 1979: 112)

Coercion means that the advantage of the symbolic generalization, by the leading of the partner's selectivity is lost: the person exercising coercion must himself take over the burden of selection and decision, the reduction of complexity is not distributed but is transferred to the person using coercion (*ibid.*). Coercion might be centralized in more simple systems while power is a condition for more complex systems. The power side of the distinction may grow at the expense of the coercion side, together with the power of the power-holder, if he carries out more and more diverse types of decisions. Furthermore, the possibilities and flexibility of the social system increases as, with increasing power, the more freedom the power-subject has to select how decisions are carried out. 'Power increases with freedom on both sides' (*ibid.*: 113). Orders and assignments need not to be explicated but are implanted as mutual expectations. The power-subject asks if it is not clear to him what is expected. To some extent power is transferred to the power-subject who for himself decides if orders must be given to him or not (Luhmann 1979: 130).

We internalize the power-holder's perspective and govern ourselves to meet the expectations we think are required of us, or in the most abstracted and advanced form, we internalize the organizational culture and attach to it. In this way Luhmann is close to Foucault in regard to seeing self-discipline as a consequence of the panoptic surveillance. We never see power without coercion, or coercion without power. In scientific management we saw a lot of coercion (instructions, control and sanctions), and only a little quantum of power (the worker did decide to do the manual work the manager told him to). In the modern organization we see the opposite picture with a lot of power (trust) and only a little coercion (control). The question then is if surveillance leads to coercion, and if this form of coercion provides a kind of coercion-economy that has similar advantages as the power-economy, since surveillance with digital media requires fewer resources than manual surveillance. In Luhmann's optic coercion means that the leader herself must take responsibility over the specifics of what employees must carry out, which means the leaders then have to invest time in surveillance and control tasks. Looking deeper into Luhmann's theory of power it also seems that surveillance can help socialize or assimilate the worker to internalize rules and decisions in organizations. But, it should also be asked, at what expense? So far there has been no consideration of stress or reference to the concern that dataveillance only targets arbitrary search parameters, which may not capture the true intentions of the employee, and which may lead to the employee having an antagonistic attitude to the organization – the consequence of which may be an old style Tayloristic (scientific management) clash of interests between management and employees.

The code of power and sanctions

The code of power may be seen as the distinction between power-holder/power-subject (Luhmann 1979) and in policy as the distinction between government/opposition (Luhmann 1989). Code means that a particular communication couples to a particular semantic; we know whether the communication is flirt, trade, or power. What creates the power-holder as a position in the communication is his competence to put the power-subject under sanctions. Power stems from the asymmetry of sanctions, since they clearly are evaluated most threateningly by the power-subject (Luhmann 1990: 158). Therefore power is played out in a state of tension, between the following of orders and the avoidance of the alternative whish is not wanted by anybody, the negative sanctions. The power-subject follows communicated demands and avoids the negative sanctions. To exert power on the basis of negative sanctions does not mean that power consists of carrying them out. Negative sanctions are only an alternative, and an alternative which both the power-holder and the power-subject prefer to avoid (Luhmann 1990: 157). Both parts have an

advantage. In the economy also both seller and buyer have an advantage in coupling to the medium of money.

The leader may threaten the employees with sanctions if they do not obey orders. If he, however, has to exert a negative sanction, and in the worst case has to fire an employee, it will harm the organization, which loses capacity and competence; furthermore the firing will harm the mutual *trust* in the organization, which normally helps the decision-communication and the production flow to run without problems. Thus the negative sanction will harm the employee hardest. If dataveillance is in place then management must also stand ready with negative sanctions, else why exert the monitoring? In the light of sanctions dataveillance seems to mean an unnecessary and risky doubling of the threat coming from negative sanctions: 1) as an employee you know you are not allowed to write emails to your wife during the work time and therefore only do it seldom; 2) you know that the dataveillance means that this mail correspondence is going to be detected at some point. Dataveillance makes the seeing of fault explicit and it provides the obligation to execute negative sanctions, and negative sanctions are what are best to avoid.

Inflation and deflation

Negative sanctions are preferably avoided by both the power-holder and the power-subject since neither of them gain any advantage from the sanctions. Power springs from the fact that the power-holder is lesser harmed in the execution of the sanctions than the one who is subjected to them (Luhmann 1990: 157-158). The power may be affected by either inflation or of deflation: if the power-holder takes too few decisions, and in this way does not use the power which originally was ascribed to him, he gets too close to the means of sanction. In this situation the power-holder risks his power position if only a single decision is not followed, which is evident in this kind of situation. If the power-holder on the other hand trusts too much in his power and takes more decisions than can be sanctioned the power is hit by inflation (*ibid*.: 164-165; 1979: 166). Because sanctions are not an advantage to anybody, but necessary for the emergence of power, sanctions must only function as a threat taking into account the risk of inflation and deflation.

If the IT-policy of the organization is to forbid many personal uses of its digital media, for example all private use of media, it has an inflationary effect on the power medium, because it will be impossible to match all the offensive behaviour with sanctions. For an organization with such a policy, it must enforce it on a daily basis to escape deflation in the power medium. So dataveillance seems to be a needless extension of complexity, which works as a risk for the economy of power in the organization.

Power chains and the reflexivity of power

Power chains in organizations increase the scope of power to a degree that far surpasses what a single person would be able to perform (Luhmann 1979: 133; 1990: 161).[2] With a power chain we can see that A can have power over B, B power over C, and C power over D etc. Luhmann only talks about such chains if A not only has power over B, but power over B's power over C etc. It is the reflexivity of power when power is exercized on power (Luhmann 1979: 133). Even the general manager must listen to the executive committee and the shareholders, even the prime minister must listen to the voters and the parliament, while the absolute ruler of an organization and the dictator of a state must be contented with lesser power and more coercion.

When a manager asks an IT-worker to control other workers' use of the internet it is an expression of a power chain. As an example on reflexivity we can take an employee who comes to the manager and complains about the monitoring of his use of the internet. If the organization wants to be a learning organization, exploit the recourses of the employees, be open, organized according to the brain metaphor, put the wellbeing of the employees in focus, etc. it has to organize itself so that power may be used

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[2] The concept of *power chains* come under the concept of *decision premises* for Luhmann (2006).

against power in a transparent and reflected manner. It is clear that there is a connection between technical media for communication and successful organizing: 'Without writing it is impossible to create complex power chains in political and administrative bureaucracies' (Luhmann 1979: 111). It is also clear that digital media now is the most central nonhuman[3] part of the decision making chain of communication in organizational power chains. Therefore the question is how organizations may apply digital media without incurring the damaging effects of surveillance. Surveillance might become part of an ethical account in the organization or a part of value-based management, through decisions based on research and knowledge on the one hand and as a dialogically reflected foundation in the organization on the other hand. Digital media are part of the actor-network in organizations and may be described according to their function in organizational power as actors which furnish management with the power to monitor the employees' digital persona. At the same time, nonhuman digital actors may extend the reflexivity in organizations because they can make everything mediated in them transparent. So, if transparency is not to harm the trust in organizations there must be a permanent discussion about what is monitored and who can have access to the data. Even though this might sound extremely complex it seems to be a necessity if the trust that organizations and organizational power is based on is to be maintained. It also seems essential if organizations want to have a profitable power economy and want to resist becoming a Tayloristic control hierarchy organized on automatized coercion. Seen from a cynical neocapitalistic mindset it could be asked what would be wrong with this because it seems at first glance profitable. The management could establish a digital panopticon so that employees are forced into self-discipline. This auto-coercion might inspire employees to act as if they are in power and therefore there is no need to have to instruct the employees all the time but let them be lead by their self-discipline. At another level, however, this situation could ultimately lead to a lack of motivation, problems with finding qualified manpower, weak corporate-spirit etc. on the one side, and on the other side, a dictatorship subverting power chains, which could lead to higher positions leaving the middle positions out of controlling the lowest positions and thereby communicating mistrust to the positions that are left out.

Informal Power

Luhmann (1979: 134) describes informal power as a sub-code to power and mentions as functional equivalents reputation in the scientific system and cigarettes as means of payment in the economic system. Informal power is related to power chains since for each link in the chain there is a possibility for informal power, which for the power-subject is a possibility to leave a mark on concrete decisions or even a possibility for blocking them (Luhmann 1979: 133f). This provides a dilemma: what the organization wins in reduction of complexity via power chains, at the same time means that the management at the top of the hierarchy must act on a shortage of information and control (*ibid.*: 179).

If the management has power over the IT-worker then surveillance may provide it with a better chance of extending its power by surpassing some of the informal power. The nonhuman actors that are a part of the organizations – in other words, the digital media which organizations communicate in – may assist in providing transparency to organizations, which can thereby counteract informal power, but the surveillance itself is dependent on not being blocked. The IT-workers are in a dilemma, caught between management and employees since they are the ones who have to monitor their colleges (Stanton and Stam 2003: 172). Also, informal power plays a role here because there may be many different ways in which employees have a hold on each other, which might block surveillance so its effect will not be even throughout the organization. Dataveillance may contribute to the extension of reflexivity in organizations by undermining parts of the informal power, but at the same time it extends the informal power of the IT-workers and the informal power of those with a hold on the IT-workers.

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[3] About the concept *nonhuman actor* see Latour 1992.

Rights and power

The relation between power and rights is that if a person is legitimately in the right situation then they also have the power to mobilize power, if it is institutionalized in the organization (Luhmann 1979: 139). However the power-holder and rights do not fall on the one side and the power-subject and wrong on the other side (*ibid*: 143). The power is not always in the right, but may be legally justified (*ibid*: 144).

If the leader has decided that everybody has to use a digital calendar and some do not follow that decision so, for instance, the secretary may not be able to see where the employee is, and they could then complain to the leader and in this way mobilize power.

Organizational power and personnel power

Luhmann distinguishes between *organizational power* and *personnel power*. The first kind rests on the competence to give official directives, which if not followed can be sanctioned by dismissal. Power over personnel is about influence on the arrangement of occupied posts (Luhmann 1979: 177). The limits of organizational power lie in the shortage of usable personnel, while the limits of personnel power lie in the shortage of attractive posts (*ibid.*: 178). Organizational power comes from the risk of losing one's membership of the organization, while personnel power depends on sanctions with influence on careers (*ibid.*: 177). The latter is far the most dominating and prevalent form of power both as a positive sanction in regard to expectations of promotion or getting a more attractive position, and as a negative sanction, in regard to expectations about being bypassed in the competition for attractive posts (*ibid.*). Employees must obey power by fulfilling minimal demands and not being openly mutinous (*ibid.*). Organizational power is more sensitive to short-run situational conditions like business recessions where it grows because of more competition about positions, while the opposite is the case in an economy with full employment. Personnel power is relatively untouched by such ups and downs because there is always a shortage of attractive posts (*ibid.*: 178).

The digital calendar can be seen as an example of participatory surveillance because employees in that medium themselves inform as to their whereabouts and what they do with whom. It might result in the employee being fired if they do not begin to use the calendar, but then in most organizations getting fired for such a reason would be unlikely and personnel power would then come into play. The employee not using the calendar would become visible to the management and to colleagues who themselves were more or less irritated by the use of the calendar. The employee themselves would also become known as the one who does not follow commands, one that is not fully trustworthy, and, maybe, as one who acts as he does because he wants to hide, or cannot master the technical implications of the digital calendar. Only the imagination puts limits on such motive-thinking. Thus is the case with all dataveillance: *you get hit by sanctions derived from the motives that are ascribed to you because of the traces that you leave in digital media*. If you do something against the prescribed rules for good behaviour then trust in you will diminish, you will not be first in line to get promoted, you will be more likely to get less attractive tasks than before, and if there are redundancies to be made then the visibility will not be an advantage.

The nonhuman actors work as epistemological machines (Foucault 1991), which stabilize an otherwise multi-stable world (Ihde 1986). The contingency disappears and it seems necessary that exactly the parameters, which are objectified as a by-product of the programs and channels that are available for surveillance, are used for the evaluation of the employee. Heterogenic circumstances are observed through a filter that only lets special things slip through which later are used for comparing employees, for identifying the rogue employee from the good employees. So, the employee's business performance becomes irrelevant if, for instance, he writes private emails, looks at porn, has private phone conversations etc. As a matter of discussion it would be obvious that employees who do not do networking, have good social relations with family and friends and keep their sexual desires under control are those that are not wanted in organizations. It is also a risk if stored surveillance data are not brought

forward before a conflict between an employee and the management occurs, resulting in a situation where management search for violations when, for other reasons, they want to sanction or fire an employee.

Abstracted power

In organizations the power medium may be abstracted to a level beyond the personal so the power is not dependent on persons but only on the conditions of the code. This means that the power is ascribed to the organization and not to the person; the employee knows what is expected of him (Luhmann 1979: 131). The employee's experience with and knowledge of the power medium means that they control themselves according to their reflections about the medium as it appears from the internal communication history of the organization, meaning that they seldom if ever need directives. Such a balance is the result of the mutual respect between employees and management in a relationship that works through trust and not control, through power and not coercion. Orders and directions need not be made explicit but are perceived as mutual expectations.

In regard to the panopticism we may fear that the abstracted and internalized power of the organizational members will run out of steam. The mechanism may be said to be so successful that it destroys itself – what to do is explicit in what is registered. As mentioned earlier, seen from a cynical angle coercion implemented via computer networks may work as a functional equivalent to power as a medium. In such a system coercion works because it is dependent upon automated control. According to Luhmann (1990), however, control is always oriented at the past. Perhaps therefore, it is not shaped to adjust organizations dynamically to the continuous changes of the surrounding world as would be necessary for them to maintain themselves. The whole ethos of the flat management structure, the brain metaphor-organization, the open organization, the leaning organization etc. is lost when control is introduced, since it inevitably break down trust. Trust exists and bears fruit because control is only used exceptionally, because people are willing to run risks and see that others run corresponding risks. When control is the exception rather than the rule the organization has trust in its employees; it trusts that they can think for themselves and take the right decisions for the organization.

Reflexivity and observation

Surveillance in accordance with diagrams has always been tightly coupled to power in societies (Deleuze 2004: 53). We cannot escape standards for behaviour on the one hand and surveillance of behaviour according to those standards on the other hand. But organizations can link to sousveillance, as the reflexivity of power as a mutual transparency. Organizations can be open to negotiations about what is monitored and how the surveillance is designed. A basic problem is that there are differences in perspective and understanding between three core types of organization members: management, IT-workers and ordinary employees. Often the management is most interested in knowing the workflow, processes, efficiency, production etc. which the nonhuman actors can provide. But to get this information they are dependent on the IT-workers, who typically are rooted in and oriented to technical and functional foci, and therefore not capable of foreseeing the consequences of surveillance (Stanton and Stam 2003: 172). If we are to overcome the gap between management and employees, and there seem to be good reasons desiring that outcome, it must be openly discussed what has to be monitored, of whom, and with which consequences.

Surveillance is like other forms of observation; it only observes what it is programmed to see (Luhmann 2005). It looks probable that organizations, which with new media have more opportunities than ever to monitor, risk losing the power-economy that is gained by the trust-relationship with employees. Even if the employees self-discipline themselves according to knowledge about what is monitored, they will be interpolated in the organization in accordance with what McGregor called theory X. I cannot resume the huge debate about motivation here, but to summarize, if an employee is trusted, and he realizes that the organization runs the risk not to control him, he is then likely to feel responsible and take control of his own actions so that he lives up to the company's expectations. Seen from the angle of Luhmann's theory

of power, organizations are able to do more with a form of organization built on trust and power than on control (mistrust) and coercion. It becomes more probable that decisions are decided when surveillance does not create and spread mistrust. When escaping surveillance is an illusion (Foucault 1991) and new media not directed towards some utopian end, organizations must aim not to become, in contrast, a dystopia of, neo-Tayloristic control hierarchies, by openly maintaining debate about the norms and values that really mean something for the organization. Surveillance could, for example, monitor processes so it is clear what is going on, but not monitor the behaviour of individuals.

Already the architecture and the work-description is an expression of power: as an employee you must be in special places, carrying out particular functions, at specific times, carrying out special tasks. If the employee does his work satisfactorily, it appears unnecessarily to monitor what he uses his computer for outside of this business function. Why risk the trust-relation, why risk creating a conflict of interests, why humiliate the employee, who the organization wants to hold on to, who themselves wish to be a proud and loyal representative for the organization, and who maybe works with and provides a service to customers, or invents new products?

The power lies in the functions, in the communications, in the decisions that work as decision premises in accordance with the media. At the same time, media are power-factors; they work as decision premises, as active inscriptions, as self-active expressions about the organization's members, and they record information and transmit it – but do we really know what we want those monitored in organizations to become, or do we blindly run after the panoptic architecture the media provide?

Power reduces double contingency in organizations, so members manage themselves and need not to be controlled and forced and need not to be told what to do all the time. If, on the contrary, the power disappears then the self-determination – to which workers submit themselves in order to fulfil the aims they think the power demands, so they can maintain their status and maybe gain a promotion – also disappears.

Through dataveillance, many demands and aims can be monitored and their fulfilment controlled. Taylorism passed into Fordism, where the conveyer belt was used to push the employees to their physical limits. The work-flow is speeded up in the office now; with digital media and dataveillance the worker is pushed to his mental, social, as well as physical limits. Like technologies such as the conveyer belt, communication media are used for surveillance and provide coercion, not power. Whereas the conveyer belt and its speed clearly were intended for control and coercion in harmony with the hierarchical organization, it is more ambiguous and uncertain what dataveillance provides to the modern organization. As we in the sociotechnical paradigm began to design technologies of production, so too did they manage to better match our psychic and social needs, so we could begin to reflect on digital media's communicative space.[4] What do we want to store and retrieve? And if we want to store and retrieve data about specific parts of communication and behaviour, the question is, who we want to entrust with this ability and who, or which positions in the organization, do we want to have monitoring those who carry out the surveillance. These questions must be the object of reflective processes, if effects are to be avoided that not only seem to harm the social atmosphere and have bad psychosomatic consequences, but also seem to harm the competitiveness of organizations. This discussion must go on continually (reflexively) and balance on the one side the desire/need for power and trust and unwanted control (mistrust) and coercion on the other side. The remediation of surveillance in digital media demand reflexive processes in organizations; if not, their communicative space shall turn into a digital panopticon.

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[4] A medium's communicative space is a concept describing a medium's social possibilities through nine parameters (see Tække 2006 and 2008b).

Conclusion

This article has taken digital media into consideration in regard to surveillance and organizational power. It outlined the current situation as one where digital media provide society and its organizations with a new communication milieu, which means a new information situation. Within this new environment what is communicated is also stored and retrievable, and at the same time organizations are challenged because this milieu also contains tempting time-consuming activities and maybe competing networks. However, during the last century organizations have been in a process of leaving behind hierarchical control systems and mistrust of its employees, dictated by competition in markets that demand multi-skilled employees who can think and decide by themselves. This leaves organizations with a problem, because monitoring the employees means a couple of risks. One risk is that digital surveillance only provides a limited selection of data-traces of actions left by individuals and might not capture their core contributions to the organization. Another related risk, according to Luhmann, is that there is a relation between trust and control on the one hand, and power and coercion on the other. Luhmann puts forward a positive concept of power, which demands freedom on both sides of the distinction between power-holder and power-subject. Power is to trust the power-subject, which sets the power-holder free from instructing and controlling on the one side, and on the other motivate the power-subject to do what is best for the organization – to be creative, innovative etc. The counter concept is coercion, and to use coercion means that the power-subject must constantly instruct and control the power-subject, resulting in a poor reduction of complexity and what I in the article call a bad power-economy. This leads to a problem in relation to surveillance, because to monitor the employees is to communicate mistrust in them, and power is dependent on trust. The article provides a number of Luhmann's analyses of power and thereby mediates central parts of his power theory and relates the parts to the situation of digital surveillance. In the two final discussions it becomes clear that we cannot escape surveillance and that transparency and democratization is the only way to handle the dilemma of having both trust (and a good power economy) and surveillance at one and the same time. To elaborate and put this conclusion in perspective we can say that both Luhmann and Foucault have a coercion concept of power. For Luhmann, power rests on the power-holder's ability to put the power-subject under sanctions. For Foucault, surveillance is in the organization itself, in the architecture, in the timetable for activities, in the tools, the norms for behaviour, which constantly forces employees to act according to the power. New media means that the old norms are undermined, and calls for new reflectivity. If organizations want to maintain themselves and have competitive advantages they must organize themselves so the digital work- and communication environment does not harm the mutual trust relation when using surveillance to evaluate performance.

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