

How ICT can contribute to the use of impression-management strategies in a public organization

Full Papers

Stefan Holgersson

Department of Management and Engineering

Division of Information systems

Linköping University

SE-58183 Linköping, Sweden

stefan.holgersson@liu.se

Abstract

This paper describes how the use of Information and Communications Technology (ICT) can be an important factor in impression-management strategies in a public organization. It is often easier to obtain information with the help of ICT than by using other ways of collecting knowledge about an activity. The anonymous output, often at high aggregated levels, is in focus, not the quality of the input and the unique situation behind the information. This paper shows that there are good opportunities to use ICT for impression-management, which can be described as a process divided into four steps. The first step is about how data is generated and/or collected. The next step is linked to how data is registered. The third step is about output generated from ICT and the fourth step how output from ICT and ICT itself is used to produce presentations which create a good impression.

Keywords

ICT, presentations, impression-management, legitimacy-building, information-quality

Introduction

Organizations, particularly in the public sector, often have to respond to a high level of demand, which can be difficult to meet. In order to satisfy external stakeholders that the operations are working satisfactorily, it is common for organizations to use different forms of impression-management strategies. This phenomenon, legitimacy-building, is well known and over the years many researchers have highlighted this situation (see e.g. Meyer & Rowan, 1977; DiMaggio, 1983; Alvesson, 2013). In presentations of results and information exchange ICT plays an increasingly important role (Stephen et al., 2008). It is easy to generate various forms of output using ICT, where tables, graphs and diagrams can make an impression that is accurate and reliable. These circumstances create good opportunities to use ICT to build appealing images of how the operation works. DeLone and McLean's widely referenced model in the information systems (IS) research area emphasized the importance of taking information quality into consideration when measuring the success or effectiveness of information systems (DeLone & McLean, 1992). It is possible to get an insight into the role of ICT in misleading information by studying the extensive number of research articles addressing the importance of an appropriate system design (Nicolau & McKnight, 2011; Davis et al., 2006), but there is limited research on what kind of role ICT can play in impression-management strategies (Sosik & Jong, 2012). This paper seeks to address this gap by trying to answer the question of what role ICT can play in impression-management strategies. Beyond that the purpose of the study is to identify and describe how the use of ICT can contribute to the use of

impression-management strategies, the effects of such behavior will also be briefly addressed. The goal is to embrace a holistic approach and to avoid limiting the study by focusing on a single explanation.

An organization in the public sector, the Swedish Police, will be the subject of the research. The police have a central role in the public sector, where factors such as credibility and trust are important. The consequences of such an organization using impression-management strategies are especially interesting to discuss. The paper begins with a method section, followed by a reference section, including a short description of research that is connected to the actual research question. Thereafter, there is an exemplification of how the use of ICT has been a part of impression-management strategies, followed by an analysis which categorizes empirical data. The paper concludes with a summary and a discussion of, among other things, the need for further research.

Method

To be able to answer the research question intimate access to an operation is required, where it is possible to follow the information process from the source - where data is generated and registered - to the end of the chain, i.e. how output from ICT is interpreted and its effects. That is why the study is limited to one organization. The Swedish Police has been selected for this study as it is an organization which puts a lot of effort into using impression-management strategies (Holgersson 2013) and there is good access to empirical data. The first challenge is to identify possible situations where ICT has been a part of impression-managing strategies. Extensive field studies have been conducted in the organization that is the subject of the study (> 10,000 hours) between 1997-2015. It has created a large network and fostered a great deal of trust, which led to tips about various examples of where impression-managing strategies have been used. Tips have come partly through e-mails, phone calls and direct meetings, but the organization's use of impression-managing strategies has also been discovered in connection with participant observation with associated field interviews.

Interviews and various forms of registry studies have resulted in a deeper insight into the phenomena. Between 2007 and 2015 more than 500 interviews were conducted at different hierarchical levels in the Swedish Police - from the bottom to the top. There were two different strategies in selecting whom to interview. One strategy was to interview those personnel who trusted me implicitly in order to obtain their reflections. The primary goal with these interviews was to gain, in more general terms, a deeper insight into the culture and the use of ICT and legitimacy-building in the Swedish Police. Another strategy was to focus on identified examples of impression-management strategies and follow the information chain by interviewing personnel on different hierarchical levels - from personnel who registered information to personnel who used that information for presentations. Impression-managing strategies in the Swedish Police have been exemplified in research papers and research reports (Holgersson, 2005; 2007; 2013; 2014a), but there has been no comprehensive analysis of which role ICT can have in impression-management strategies. That is the aim with this research study. It is possible to use Grounded Theory (GT) (see Strauss & Corbin, 1990) in order to define categories that answer the research question. At the same time it can be beneficial to make use of earlier research to answer the research question, i.e. using theory in combination with categorization of empirical findings in a reflexive research approach (Bryman & Bell, 2007; Alvesson & Sköldbberg, 2010). Interview and register study data from all the identified examples of impression-management strategies using ICT is analyzed in order to find categories. Other research findings with a connection to those categories are then utilized to gain a deeper insight into the phenomena. Since the study is carried out in one organization, there is also a need to see if the identified impression-managing strategies appear to be unique to this particular organization or whether the observed phenomena and, by extension, the conclusions can be generalizable and relevant also for other organizations.

Theory

From an institutional theory perspective, legitimacy-building is an important concern for organizations (Meyer & Rowan, 1977; DiMaggio, 1983). It is widely accepted within organizational analysis that organizations have to adapt to their environments in order to survive (Child & Rodrigues, 2012; see also Lawrence & Lorsch 1967). In modern organizations, especially in the public sector, it is therefore an important strategy to maximize a good image of the activities (Alvesson, 2013). In government

organizations the presentation of figures often has higher priority than the reality behind the statistics (see Brunsson, 1989; 1993). There are many impression-management strategies used by organizations, and leaders sometimes engage in self-presentation activities where they try to control their image in order to achieve desired personal and organizational outcomes (Sosik & Jong, 2012; Schlenker & Weigold, 1990). Creative compliance is used in the audit process – games that both frustrate official intentions and lead to dysfunctional behavior (Power, 1997).

ICT nowadays plays a key role in organizations in persuasion, information exchange and documentation (Stephen et al., 2008). ICT makes it easy to compile and to compare the results of different organizations (see for example Bejerot & Hasselbladh, 2011) and information in databases is likely to be seen as a mapping of an “objective reality” (Lyytinen, 1983). Output generated by ICT looks precise and reliable, but there are reported risks that the output can give a misleading picture of conditions (Luft, Sandra & Hunt, 1986; Holgersson, 2001; 2005; Eterno & Silverman, 2012). A common distinction is between explicit and tacit knowledge (e.g. Nonaka, 1994). Knowledge represented by and stored using ICT is “exposed knowledge” and “facts” (see, for example, Walsham, 2004; Hassel, 2005). Tacit knowledge is difficult to share through ICT and all knowledge includes both tacit and explicit elements (Hislop, 2002), which means that some information risks being invisible when the focus is on the output generated by ICT. Human activity is highly flexible, nuanced and contextualized and there is a social-technical gap between what we know we must support socially and what we can support technically (Ackerman, 2000). The conditions mentioned above affect the quality of information generated by ICT. Furthermore, ICT-design influences how the data exchange interaction works (Nicolau & McKnight, 2011; Davis et al., 2006), and system design is therefore important to take into consideration when using output generated by ICT for analysis (Nicolau & McKnight, 2011).

Registered information about specific cases is often presented in aggregated form when using ICT to compare the results of different organizations, but the quality behind the figures is hidden (Bejerot & Hasselbladh, 2011). Focusing on quantitative data generated by ICT can therefore easily cause dysfunctional behaviors in organizations and this type of behavior has been observed in different organizations (Lapsley, 2009; Bejerot & Hasselblad, 2011; Speklé & Verbeeten, 2014). Researchers have also identified such behavior in police organizations (see Young, 1991; Holgersson, 2011; Eterno & Silverman, 2012; Holgersson, 2014a; 2014b). Eterno and Silverman present, in their book entitled “*Management by Manipulation*”, how the police in New York (US) act to give the impression that the organization operates in a certain way, even though it does not. CompStat is an ICT- system intended to help the New York Police Department map crime. CompStat has a central role and is based on several index crimes (defined by FBI as serious). Eterno and Silverman point out that it is important for managers that the system shows “good” figures and this pressure results in various manipulations. One is to change index crimes to less serious offenses (misdemeanors). Another method to get fewer reported crimes is to make it difficult for victims to report crimes (Eterno & Silverman, 2012).

Examples from the Swedish Police

Communication Centers

Stockholm Police centralized their local radio dispatch units to one big central unit. The reorganization was for a trial basis and would be evaluated after six months. The new organization was subject to both internal and external criticism, inter alia the response time, but the top management pointed to statistics generated by ICT to show that effectiveness was actually better after the reorganization than before:

“In the first three months the average waiting time has decreased by 17.2 percent compared to the same time last year. Average time from when a case is registered to when a police officer is in place - for priority 1 cases - has decreased by 15.4 per cent (the same comparison period)” (Holgersson, 2001, p. 142)

Management chose to use output from ICT on an aggregate level for the entire county, but behind this presented picture, only two of the eight police districts showed positive results. The results from these two districts were so good that the result for the entire county was positive, but the use of mean values was misleading because of a great standard deviation. Instead of a 60 percent shorter time to order a patrol

(when using mean values), in the district with the most positive result the time was 27 percent longer in that district when using median values. See the following example for an explanation:

“At 22:20 the communication center got a call that a wanted person would probably visit the welfare office the next morning. At 08:01 the following day a patrol was ordered to go to the welfare office. They arrived at 08:18 - almost 10 hours from the registration of the case. The 10 hour “on-site time” had a great effect on the mean value.” (Holgersson, 2001, p. 144)

Newly introduced ICT changed the routines and how information was registered. The output of ICT gave the impression that the process worked better, although that was not the case. Despite management knowledge of this problem, output generated by ICT was used to encourage politicians to take the definitive decision to centralize the communications centers in Stockholm. This way of organizing the function spread to the whole police organization in Sweden, which had mainly negative effects, such as poor contact with the local community, longer response times and higher costs (Holgersson, 2001; 2005; 2014b).

Crime prevention

When the public and politicians complained about police visibility and low priority of crime prevention the police used ICT outputs to refute these claims. Output from the IT-system gives the impression of being precise and reliable but the information was not accurate. The following activities were, for example, classified as crime prevention:

- Dog and horse training.
- Training on the shooting range.
- Emergency Driver Training.
- Manager Introduction.

Because the information was presented on a high aggregate level the details about what was included in the figures were hidden (Holgersson & Knutsson, 2012). ICT was used to give an impression that the police work hard and successfully with crime prevention. The information was distributed with the help of ICT through social media, websites and by sending e-mails and press releases to the media. Often various forms of production statistics from ICT are highlighted, such as number of confiscated weapons and arrests. This could give a positive image that the police work effectively with crime prevention, but the methods behind the presented result are not visible. In several cases the methods behind good production statistics turned out to be “paper tigers” and even counter-productive, for example the “stop and search” method led to good statistics but alienated young people through the police’s way of acting. This resulted in damage being done to property as some sort of revenge, and an increasing hatred towards the police made it easier for gangs to recruit members (Holgersson, 2008; Holgersson, 2014b).

Another observed circumstance is that the police are both a supplier and interpreter of output generated by ICT. If reported crime decreases it is possible for the police to argue that this is caused by the efforts of the police to reduce crime. If crime on the other hand goes up, the police may instead claim that the police worked hard to increase the willingness to report crimes and that the increasing number of reported crimes is proof of fewer unreported crimes. Almost whatever the output from ICT shows, the police can turn it into something positive since they are often both a supplier and interpreter of output from their ICT-system (Holgersson, 2014b).

Narcotics

Output from ICT in terms of registered drug offenses plays a key role in determining the success of the work. The quality of the work will not be visible when there is a focus on the number of registered narcotics crimes. With this focus, for example, bringing in well-known drug users has the same value as discovering a new user in the risk-zone for addiction. In one area ten people were suspected of 150 narcotics crimes during one year. One of these people was brought to the police station five times during

one week, suspected of using narcotics. All ten were drug addicts and to bring them in repeatedly was an easy way to improve the statistics (Holgersson, 2007).

Another key-figure is the number of discovered narcotics sales. One way of manipulating the statistics was, when people were suspected of using or possessing small quantities of narcotics, to also register a crime of selling narcotics, with an unknown seller. Other types of manipulation also existed. When 32 marijuana plants were found in the forest by a member of the public, the chief of the narcotics unit gave instructions to register 32 separate narcotics crimes – one for each plant (Holgersson, 2011). These types of actions dope the statistics and make it difficult to achieve the target next year, unless similar action is taken. To work with easy cases will result in better statistics generated by ICT and is often in conflict with what research has shown to be an effective method to defeat narcotics problems. For example to spend time trying to gather evidence against a hard-to-prosecute dealer who sells to young people in a school is important, but will probably take time and there is a risk, therefore, that such activity is avoided (Holgersson & Knutsson, 2011).

Narcotics offenses have no crime victims who put pressure on the police. The management can, by using output from IT-systems, give the impression that the fight against drugs works well. Resources can then be focused on other crimes that have greater external pressure on the organization (Holgersson, 2014b).

Investigations

Output generated by ICT is important in order to determine how effective criminal investigative functions operate. An important indicator is the clearance rate. To spend time on easily investigated crimes is more beneficial for the statistics than crimes which are difficult to investigate. This prompts those crimes which are easily investigated to be prioritized and crimes that require more resources are likely to be closed quickly without the police making sufficient attempts to solve them. There are also various forms of creative accounting. If a crime with a high chance of being cleared up is divided into more reports it will generate a positive statistic. An example of this is when someone becomes a victim of harassment by receiving a lot of text (SMS) messages from a suspect. This type of crime was normally registered in one report that stretched over a certain period of time. By registering each SMS individually it is possible to achieve positive statistics. The quote below is the investigation directive to an investigator. This notification generated 390 reports:

“I have talked to the prosecutor. He gives us permission to write a report for every SMS. It will change our statistics in a significant way” (Holgersson 2014b, p. 84)

An administrative measure to manipulate the statistics was given priority over other activities and six police officers were involved in writing these reports instead of doing something more productive.

Road safety work

The focus on simple key-ratios, generated by ICT, which increased each year could be used by management to demonstrate that traffic safety work was prioritized. However, the number of traffic police officers has declined sharply over recent decades. Using ICT to generate a specific figure, something easily quantified, did not reflect the actual quality of the work undertaken. There was, for example, a focus on the number of breathalyzer tests registered with ICT. It was therefore not important where and when the tests were done. Most tests were carried out when the risk for drunken driving was the lowest and vice versa – when the risk was highest for drunken driving, tests were at the lowest level. There were also police officers who received direct orders to stand in places where the risk of finding drunk drivers was low. The explanation was simple. If police officers actually found a drunk driver they would not be able to carry out further breathalyzer tests during the time spent processing with the drunk driver they had caught. The focus on key figures retrieved from ICT was contra productive for the police work in the road safety area (Woxblom et al., 2008; Holgersson 2014a; 2014b).

Local police officer

For many years there has been a clamor for the police to be closer to the public that they serve, both in order to meet local needs and to work in a problem-oriented way. Therefore the police have reorganized a number of times, and have presented output generated by ICT showing the number of local police officers.

However, to get good statistics the police have – mostly – only re-categorized officers as being locally placed in an ICT-system, no actual change having taken place (Holgersson, 2005, 2014b). Output from ICT showing that the number of local police officers has increased satisfied external stakeholders, but after a while it became apparent that the police did not come closer to the public. Police then introduced local police offices (only single meeting-rooms, not even small police stations) as a way to get closer to the community. Their work was promoted through social media and websites. One way of showing the success of the introduction of the local police offices was through the use of those outputs from ICT which showed crime statistics.

The result from work in one of the first police offices was presented as very successful - violent crime was alleged to have decreased by 19 percent the first year. Output generated by ICT was the basis for this conclusion. An analysis revealed, however, that the police compared a single month with low crime to one month with high crime from the preceding year. Using output generated by ICT that included the whole first year indicated that the reported number of violent crime had increased after the introduction of the local police office - contrary to the information given by the police (Holgersson, 2014b).

Analysis

The empirical data shows that data generated from ICT plays a central role in the registration and monitoring of the outcome of the various operations carried out by the police. These follow-ups are often about information presented at an aggregate level, expressed in simple quantitative measures where the individual cases behind the numbers are anonymized.

Output from the ICT gives the impression of being precise and reliable and is often more or less seen as a mapping of an “objective reality”. This creates good opportunities for impression-managing strategies, and the categorization of the empirical data shows that such an aim can be described as a process divided into four steps:

- Collection/Generating
- Registration
- Output
- Presentation

Collecting/Generating

For the collection and generation of information that will be registered in ICT, it may be tempting to show - and there are many opportunities to act in order to give such an impression - that things are better than is actually the case. The work in the area of road safety and narcotics crimes are examples where police personnel take shortcuts to affect the statistics rather than applying methods that may give the desired effects. ICT makes it easy to create different types of control systems; consequently, “*Computers have become the cement for command-and-control management*” (Seddon, 2005, p. 9). Easy quantitative targets have for several decades been common for management of public organizations - it is a key component in current NPM (New Public Management). The control and goal-setting establish, however, a pervasive form of control where goal displacement is common (Deetz, 1992; Power, 1997; Bejerot & Hasselbladh, 2011). There are a great number of examples from the public sector indicating that focusing on quantitative data generated by ICT can cause dysfunctional behaviors in organizations (Lapsley, 2009; Kelman & Friedman, 2009; Speklé & Verbeeten, 2014).

Registration

There are many opportunities to manipulate the result when registering information with ICT. Examples of this were found in the investigation activities, narcotics crime and the registration of personnel as local police officers. The boundary between this step and the first step in the process (Collection/ Generating) is sometimes not distinct. This was the case in the narcotics field when police officers suspected that someone who has used drugs must also have purchased the drugs, and therefore registered a narcotics sale with the help of ICT. Just as in the first step of the process regarding the ICT role in impression-management strategies, there are several examples of manipulation in other organizations when registering information with ICT (see e.g. Eterno & Silverman, 2012). Another factor that is reasonable to

emphasize is that ICT cannot capture all of the nuances or fit all of the contexts of social situations (see, for example, Ackerman, 2000) and that ICT-design influences how the data exchange interaction works (Nicolau & McKnight, 2011; Davis et. al., 2006). This circumstance is important to take into consideration when using data generated with ICT for analysis (Nicolau & McKnight, 2011). Not doing so in the next steps when using output generated from ICT can be one part of impression-management strategies. An example of that is the centralization of the Communications Centers and the crime prevention areas.

Output

There are many opportunities to make outputs with ICT as a part of an impression-management strategy when figures are valued as more important than the truth behind them. In all the examples with empirical data from the Swedish Police it was possible to observe this type of action and examples from other organizations are many (Brunsson, 1989; 1993; Power, 1997; Bejerot & Hasselblad, 2011).

Presentation

The boundary between this step and output is not solid, but presentation is listed as a separate step because of the fact that it is about how the output of ICT is selected to be presented, and about how ICT itself is used, e.g. through the use of social media, to set out a good picture of how the operations work. In all the examples from the Swedish Police the presentation step is important in the impression-management strategy, which is in line with what has been observed in other organizations (Alvesson, 2013).

Table 1 provides a compilation of the extent of impression-management strategies in the examples. In three of the six examples of operation areas the use of impression-management strategies has been identified in the first step (Collection/Generating). In the next step (Registration) impression-management strategies were observed in all examples, apart of one. In all examples impression-management strategies were present in the output and presentation step.

	Collection/Generating	Registration	Output	Presentation
Communication Centers			x	x
Crime prevention		x	x	x
Narcotics crime	x	x	x	x
Investigation	x	x	x	x
Road safety work	x	x	x	x
Local police officers		x	x	x

Table 1. A compilation of the extent of impression-management strategies in the examples from the Swedish Police.

In the short term it may be advantageous to use impression-managing strategies. It can make the public feel more secure and the organization can focus more on their core operation (Holgersson, 2013). However, in the long term, there may be many disadvantages. Firstly, an organization that is tax funded risks not getting the necessary allocation of resources if the operations give the impression that they function well, and consequently there will not be sufficient incentives to inject more resources. Politicians might find it more important to allocate funds to other activities within the public sector. From a democratic perspective and for the police credibility and trust towards the organization, it is moreover problematic to use impression-management strategies (Holgersson, 2014b). Another problem is that it risks hiding the need to develop police methods. If things seem to work fine, there is no reason to change either the practice or the tools in term of, for example, changes in legislation (Holgersson, 2013; Holgersson, 2014b). A further problem with impression-managing strategies described in this paper is

that employees become frustrated, which in many aspects is unfortunate, inter alia for organizational performance (Holgersson, 2005; Holgersson, 2014b).

Conclusion and discussion

In this case we have seen an illustration of ICT creating output that is seen as objective, but this can be misleading. This case also illustrates that the anonymous output, often at high aggregated levels, is in focus, not the quality of the input and the unique situation behind the information. That the quality of the information is hidden opens up good opportunities to use ICT in impression-management strategies. The impression-managing which was found to exist within the Swedish Police seems to be common in other organizations (Alvesson, 2013). Impression-management through the use of ICT may be seen as a process consisting of four steps. The First Step is about how the data is Generated and/or Collected. The Next Step is linked to how the data is Registered. The Third Step is about the Output generated from the ICT and the Fourth Step how ICT is used to make Presentations and describe different phenomena. In the short term impression- management strategies connected to the use of ICT can be positive both for the organization and the public, but in the long term they will cause many dilemmas.

Paradoxically, the large investments made in ICT in organizations in order to help increase performance, have at some point given rise to the opposite effect, because it facilitates the use of impression-managing strategies. It is not just about a misuse of resources for too many follow-up activities, it is also about other administrative activities which only serve to give an impression that the operation works well, such as splitting up one report into a lot of reports – which, for example, was the case in the investigative activity. Furthermore, the focus on key figures from ICT generates dysfunctional behavior as in the road safety work where officers received direct orders to stand in places where the risk of finding drunk drivers is low, in order to obtain good statistics. The problem with dysfunctional behavior when focusing on quantitative data generated by ICT has been observed in many organizations (Lapsley, 2009; Bejerot & Hasselblad, 2011; Enterno & Silverman, 2012; Speklé & Verbeeten, 2014). The use of ICT opens up a lot of opportunities to make the work more efficient. At the same time it can be a challenge to prevent ICT being used as a tool in impression-management strategies in order to build up misleading pictures of conditions, as legitimacy-building is important in organizations (see Meyer & Rowan, 1977; DiMaggio, 1983).

This paper contributes to the limited research on roles ICT can play in impression-management strategies. The practical implication is that decision-makers can become more aware, not focusing too much on output from ICT. The paper can also make officials more cautious of using impression-management strategies because of dilemmas in a long term perspective. This is especially relevant for police organizations that, to function properly, must have a high degree of credibility. Even if there are strong indications that the observed phenomena also exists in other organizations, the study is limited to one. There is thus a need for further research on other organizations. The theme is highly relevant since output from ICT in follow-up procedures plays an increasingly more and more important role.

REFERENCES

- Ackerman, M. 2000. "The Intellectual Challenge of CSCW: The Gap Between Social Requirements and Technical Feasibility", *Human-Computer Interaction* (15:2), pp. 181–203.
- Alvesson, M. & Sköldböck, K. 2010. *Reflexive Methodology New Vistas for Qualitative Research*, Second Edition, London: SAGE Publications Ltd.
- Alvesson, M. 2013. *The Triumph of Emptiness, Consumption, Higher Education, and Work Organization*, Oxford: Oxford University Press.
- Bejerot, E. & Hasselblad, H. 2011. "Professional Autonomy and Pastoral Power: The Transformation of Quality Registers in Swedish Health Care", *Public Administration* (89:4), pp. 1604–1621.
- Brunsson, N. 1989. *The organization of Hypocrisy: Talk, Decision and Action in Organizations*, New York: John Wiley & Sons.
- Brunsson, N. 1993. "Ideas and Actions. Justification and Hypocrisy as an Alternative to Control. Accounting", *Organization and Society* (18:6), pp. 489–506.
- Bryman, A. & Bell, E. 2007. *Business Research Methods*, New York: Oxford University Press.

- Child, J. & Rodrigues, S. 2012. "How Organizations Engage with External Complexity: A Political Action Perspective", *Organization Studies* (32:6), pp. 803–824.
- Davis, F., Bagozzi, R., & Warshaw, P. 2006. "Extrinsic and Intrinsic Motivation to Use Computers in the Workplace", *Journal of applied social psychology* (22:14), pp. 1111–1132.
- Deetz, S.A. 1992. *Democracy in an Age of Corporate Colonization, Developments in Communication and the Politics of Everyday Life*. New York: State University of New York Press.
- DeLone, W. H. & McLean, E. R. 1992. "Information Systems Success: The Quest for the Dependent Variable", *Information Systems Research* (3:1), pp. 60-95.
- DiMaggio, P. I. 1983. "State expansion and organizational fields", in *Organizational theory and public policy*, R. H. Hall and R. E. Quinn (Eds.), Veverly Hills, CA: SAGE, pp. 147–161.
- Eterno, A. & Silverman, E. 2012. *The Crime Numbers Game: Management by manipulation*, New York: CRC Press.
- Hassel, L. 2005. "Pragmatics, Speech Acts, and Knowledge Management" in *Proceedings of the 3rd Intl Conf. on Action in Language. Organizations and Information Systems (ALOIS-2005)*. Limerick: University of Limerick, pp. 133-147.
- Hislop, D. 2002. "Mission impossible? Communicating and sharing knowledge via information technology", *Journal of information Technology* (17:3), pp. 165-177.
- Holgersson, S. 2001. *IT-system och filtrering av verksamhetskunskap – kvalitetsproblem vid analyser och beslutsfattande som bygger på uppgifter hämtade från polisens IT-system*. [In Swedish. IT-system and filtering of work practice knowledge – The problem of quality in analysis of and decision-making grounded on information from the internal police IT-system] Linköping: Institutionen för datavetenskap, Linköpings universitet.
- Holgersson, S. 2005. *Yrke: POLIS – Yrkeskunskap, motivation, IT-system och andra förutsättningar för polisarbete*. [In Swedish. Profession: Police – Occupational knowledge, motivation, IT-system and other requirements for police work]. Doctoral dissertation. Linköping: Institutionen för datavetenskap, Linköpings universitet.
- Holgersson, S. 2007. *Kartläggning av svenska polisens narkotikabekämpning*, [In Swedish. A mapping of the Swedish Police fight against narcotics] Rapport 23. Stockholm: Mobilisering mot narkotika, Socialdepartementet.
- Holgersson, S. 2008. *Spelar skillnader i arbetsprestation mellan poliser någon egentlig roll?* [In Swedish. Do differences in work performance between police officers really matter?] Rapport 006-2008. Växjö: Växjö universitet.
- Holgersson, S. 2011. Appendix till rapporten Polisens arbete mot narkotika. [In Swedish. Appendix to the report about the Swedish Police fight against narcotics] Linköping: Institutionen för ekonomisk och industriell utveckling, Linköpings universitet.
- Holgersson, S. 2013. Sättet att bygga fasader inom svensk polis. En analys av presenterad bild jämfört med verkligt utfall. [In Swedish. The process of building facades within the Swedish Police – An analysis of the displayed image compared to the real outcome] *Nordisk Tidskrift for Kriminalvidenskab* 2013:1 112-130
- Holgersson, S. 2014a. *Polisens trafiksäkerhetsarbete*. [In Swedish. Police road safety work] Rikspolisstyrelsens utvärderingsfunktion. Rapport 2014:1. Stockholm: Rikspolisstyrelsen.
- Holgersson, S. 2014b. *POLISEN bakom kulisserna*. [In Swedish. The Police behind the scenes] Åby: Åby PC-system.
- Holgersson, S. & Knutsson, J. 2011. *Polisens arbete mot narkotika*. [In Swedish: The Police work against narcotics] Rikspolisstyrelsens utvärderingsfunktion. Rapport 2011:1. Stockholm: Rikspolisstyrelsen.
- Holgersson, S. & Knutsson, J. 2012. *Vad gör egentligen polisen?* [In Swedish. What do the police really do?] Liu-iei-research report-12/0004. Linköping: Linköpings universitet.
- Kelman, S. J., & Friedman, J. N. 2009. "Performance improvement and performance dysfunction: An empirical examination of impacts of the emergency room wait-time target in the English National Health Service", *Journal of Public Administration Research and Theory* (19:4), pp. 917-946.
- Lapsley, I. 2009. "New Public Management: The Cruellest Invention of the Human Spirit?" *Abacus: Accounting, Finance and Business Studies* (45:1), pp. 1–21.
- Lawrence, Paul R., & Lorsch, Jay W. 1967. *Organization and Environment: Managing differentiation and integration*, Boston, MA: Harvard Business School Press.
- Luft, H. S., Sandra, S, Hunt, MPA. 1986. "Evaluating Individual Hospital Quality through Outcome Statistics", *The Journal of the American Medical Association*(255:20), pp. 2780–2784.

- Lyytinen, K. 1983. "Reality mapping or language development – a tentative analysis of alternative paradigms for information modelling", in *SYS LAP wp No. 27*, Stockholm: Stockholm university.
- Meyer, J. and Rowan, B. 1977. "Institutionalized organizations. Formal structure as myth and ceremony", *American Journal of Sociology* (83:2), pp. 340–363.
- Nicolao, A. & McKnight, H. 2011. "System Design Features and Repeated Use of Electronic Data Exchanges", *Journal of Management Information Systems* (28:2), pp. 269–304.
- Nonaka, I. 1994. "A dynamic theory of organizational knowledge creation", *Organization Science* (5:1), pp. 14–37.
- Power, M. 1997. *The Audit Society: Rituals of Verification*. Oxford: Oxford University Press.
- Seddon, J. 2005. *Freedom from command & control: rethinking management for lean service*. New York: Productivity Press.
- Sosik, J. & Dong, J. 2003. "Impression Management Strategies and Performance in Information Technology Consulting: The Role of Self–Other Rating Agreement on Charismatic Leadership", *Management Communication Quarterly* (17:2), pp. 233–268.
- Speklé, R.F. & Verbeeten, F.H.M. 2014. "The use of performance measurement systems in the public sector: effects on performance", *Management Accounting Research* (25:2), pp. 131–146.
- Stehpens, K., Sørnes, J.O., Rice, R., Browning, L. & Sætre, A. S. 2008. "Discrete, Sequential, and Follow-Up Use of Information and Communication Technology by Experienced ICT Users". *Management Communication Quarterly* (22:2), pp. 197–231.
- Strauss, A.L. & Corbin, J. 1990. *Basics of Qualitative Research. Grounded Theory Procedures and Techniques*, Newbury Park: SAGE Publications.
- Walsham, G. 2004. "Knowledge Management Systems: Action and Representation", in *Proceedings of The 2nd International workshop on Action in Language. Organizations and Information Systems (ALOIS-2004)*. Linköpings University, Linköping.
- Woxblom, C., Holgersson, S. & Dolmén, L. 2008. *Polisens sätt att genomföra och redovisa LAU-tester. En explorative studie av polisens trafiksäkerhetsarbete*. [In Swedish. The police's way of conducting breathalyzer tests. An explorative study of the police road safety work] Solna: Polishögskolan.
- Young, M. (1991), *An inside job*. Oxford: Oxford University Press .