

Recordkeeping in Temporary Command Settings

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ABSTRACT

This article is about the recordkeeping that takes place during large police operations in different command post settings, and presents the tentative results from a three-year study. The aim is to increase knowledge of the problems related to recordkeeping in this kind of environment. Two police operations have been used as data sources, one large EU ministerial meeting in Sweden, and one regional disaster training exercise. An interpretative case study approach has been applied where observation and interviews were the primary data collection techniques. One problem is that too much important information is recorded in less permanent ways, on whiteboards and on flip charts. Capture, storage, and dissemination of those temporal and analogue records are difficult, and reduce the possibility to use records from large operations as knowledge reservoirs.

Categories and Subject Descriptors

D.2.7 [Distribution, Maintenance, and Enhancement]: Documentation; I.7.1 [Document and Text Editing]: Document management

General Terms

Management, Documentation,

Keywords

Knowledge management, Preservation, Police operation, Recordkeeping.

1. INTRODUCTION

During large crisis or emergency situations it is common that the responders organize themselves in temporary organizations to manage the incident/situation. This article is about recordkeeping, and especially about the records born in these temporary established command settings, and the problems and challenges that digital preservation brings to these records and their management.

Managing records is also about managing documented knowledge, as records are sometimes referred to as organizational knowledge sources [1-4]. It is also possible to claim that records

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are “institutional memory” [4]. In modern recordkeeping theory, i.e. the records continuum model, records constitute the archive and the archive forms part of corporate and collective memory. Organizations can gain advantages in productivity and innovation due to knowledge management. [5]. By managing records with high efficiency and quality during a large crisis, knowledge can be gained and preserved for future use within the organization and for other organizations. According to Chua [6] disaster management has not been the traditional domain for applying knowledge management, even if the societal impact could be high. However there are a few research contributions to find [6-8].

This article aims to increase the knowledge about the challenges and problems related to recordkeeping in large-scale police operations. The results are tentative from an ongoing research project with the long-term goal to develop efficient recordkeeping strategies and methods that over time can ensure that Knowledge gained from large operations can be reused. The argument for the importance of this research is the definition of knowledge management applied in this article from Jennex “KM is the practice of selectively applying knowledge from previous experiences of decision making to current and future decision making activities with the express purpose of improving the organization’s effectiveness.”[9]. Without a working recordkeeping this can be difficult to achieve.

2. RESEARCH APPROACH

The applied research method is best described as an interpretative case study [10, 11]. The data collection methods have primarily been field studies with participatory observations [12], and interviews [13]. The data collection and analysis has been an effort of one researcher, which has 20 years experience from the police practice as a sworn officer and who has now become an academic. The dual role, officer and researcher, implies that the researcher can be seen as a reflective practitioner [14].

The results presented in this article are based upon empirical data and have been evolved through analysis of the collected data iteratively.

2.1 Research setting and data collection

This paper presents the tentative results from a three-year research project, and is based upon two research studies.

The first study was carried out during the informal meeting for the EU energy and environment ministers held in Åre on 23-25 July 2009.

The second research study was a large regional disaster training exercise that took place in April 2010 in the County of Jämtland. The scenario of the exercise was an airplane incident where a

Boeing 737 from Arlanda Airport crashed during landing at Åre-Östersund airport.

3. Results

In this section we present the result from this study. We start by presenting how the police was organized during these two police operations, and within this presentation we also present how records are managed during the police operations.

3.1 EU meeting in Åre

The police operation responsible for the security during the EU minister meeting was organized in one support of staff in Östersund, and two command posts in Åre.

3.1.1 Support of staff in Östersund

The support of staff was organized following the National standard for how large police operations should be arranged [15], and had the following competences and units:

- Chief of Staff
- P1 – Operational Staff
- P2 – Intelligence
- P3 – Operational management
- P4 – Logistics and equipment
- P5 – Planning and co-operation
- P6 – Operational Analysis
- P7 – Information
- P8 – Various tasks

The support of staff had ordinary meetings at 7am, 9am, 3pm, and 10pm. During these meetings all the staff members were gathered in the staff room and each of them presented what new information had been received since the last meeting. These meetings were documented in minutes, that after the meetings were stored in a common folder on the police Intranet, which all staff members had access to. On the walls in the staff room all upcoming events were plotted together with information of common interest on whiteboards and on flip charts.

In between the staff meetings each of above mentioned P-functions (P1-P8) reported to the Chief of Staff important events. This information was communicated face to face, by telephone or by mail even if the latter was very rare.

3.1.2 Command posts

During the police operation in Åre, the police had two command posts aimed to locally manage the police operation on site. They were both located in large rooms (one for each command post) and the rooms were equipped with whiteboards and flip charts. On the flip charts and whiteboards information about e.g. important events, time schedules, and similar was written down. The command posts had fixed meeting times, where they summarized the past and informed and updated the support of staff and the police operational commanders. The information presented at these meetings were documented into minutes, and kept in a common folder on the police Intranet.

Between the meetings the officers in charge at the two command posts recorded all events in a Word document, as a diary with time stamps and a description of what happened together with the reporting officer signatures, which also was stored in the common folder. The different actors stationed at the command posts shared information between each other verbally.

In addition to the two command posts, the police operation also had a mobile command post. In the mobile command post mobile phone and radio were used as tools to communicate with the other police units. Important decisions taken by the police operation commander were documented in a log in the mobile command post, and afterwards transferred to an electronic document.

3.2 Regional disaster training exercise

The regional disaster training exercise involved only one large support of staff within the police. The support of staff was organized and physically placed in a room next to the command and control centre at the Östersund Police Authority. The support of staff was organized with a Chief of Staff, and all P-functions (P1–P8). The room was specially designed for such purposes and equipped with two dispatch operation tables, one fixed large whiteboard, one mobile whiteboard, and two video projectors (figure. 1).

During the disaster training exercise the majority of the members of the support of staff worked in this specially designed room. Only the P7 function, with responsibility for the press, moved back and forth during the disaster training exercise.



Figure 1. The Support of staff setting, with all P-functions gathered around the table

As an effect of that this was a disaster training exercise, the support of staff had rather frequent meetings, where they summarized the ongoing activities. Every function documented their work in Word files in shared folders on the police Intranet. All of the known information was plotted on whiteboards, but also on large paper sheets (from the flip chart) that were put on the walls with adhesive tape. Due to the fact that this was a regional disaster training exercise, there was also an aim to reach a wider cooperation between the police and other actors involved in the disaster training exercise, e.g. the fire brigade, the medical service, the municipalities, the air craft company etc. These cooperative meetings were held almost every hour in a joint support of staff room, where liaison officers represented all actors. These meetings were documented by the police liaison officer, and the core content of the meetings was reported during the regular support of staff meetings.

4. DISCUSSION

The operational activities, and operational decisions during the EU meeting in Åre and during the regional disaster training exercise were documented in the command and control system. The activities and decisions that took place in the temporal command settings, as support of staff and command post, mainly used Microsoft Office Word™, flip charts, and whiteboards to document their work. Almost no activities from the support of staff and the command posts were recorded in ordinary police command and control system, due to the fact that much of the activities was on strategic level and not operational. In the command and control systems, normally only operational activities is stored.

4.1 Microsoft Office Word™

During the disaster training exercise the use of Microsoft Office Word™ was very limited. It is possible that this was an effect of the fact that all police officers knew that it was only an exercise. Therefore the data presented is primary based upon data from the police operation in Åre.

Every meeting, and everything that happened during the police operation in Åre were documented in Microsoft Office Word™, and the *.doc file was stored in a common folder (accessible for all officers involved in the management of the police operation). The documents were given descriptive names and a timestamp. The common folder had sub-folders for e.g. the support of staff, command posts, general decisions, and contact information.

When you open the folder you find a list of all Word files within the folder. Both the naming of the documents and the date function in the file explorer (the Swedish police use Windows XP™) Informed each user of whether or not any new documents had been added, and which documents that it might be necessary to read.

Microsoft Office Word™ was used to document and store important information more permanently than writing on whiteboards or flip charts made possible. To be fully updated, all sub-folders had to be opened and the list of documents read one by one. In Microsoft Office Word™ a rather detailed picture of on-going activities could be stored, as opposed to the information documented on whiteboards or flip charts.

Both the support of staff and the two command posts had a 24-hours diary where they wrote down every event that happened during the police operation. The event that was documented in the diary was documented even if the event also was documented in the command and control system. During calm periods the diary were updated almost in real time, but during more critical situations the diary was not updated until the responsible police officers had the time to update it. In the support of staff the various P3 functions all had their own diaries of every event that occurred in their jurisdiction (P-3T, P-3O, and P-3K). All P-functions (P1-P8) were responsible for documenting in Microsoft Office Word™.

4.2 The flipcharts

The flip charts played a similar role both during the disaster training exercise, and during the police operation in Åre. In the support of staff rooms at least one flip chart was placed, and also in the two command posts that were used during the police operation in Åre.

During calm and normal activities the flip charts were never used. However when there was a need to write down important information of more temporal character, this was done on the flip charts. During the police operation in Åre telephone numbers, call signs on the radio and flight numbers were the most frequent information written on the flipcharts. Some of this information was either transcribed into Microsoft Office Word™, or the single chart was torn off and put on a free space on a wall with adhesive tape. In figure 1, you will see some charts added to the wall in the pictures upper right corner. When the information on the flip chart (or on the charts on the wall) was no longer important for the management of the police operation, the chart was torn off.

It was not always a one-man show to decide whether to use the flip chart or not. Often the use of the flip charts was preceded by a discussion between the involved actors to document things on the flip chart. The flip chart was not used to document all kinds of stuff. Normally the flip chart was used to document extraordinary events. This also gave the flip chart a signal value, i.e. if there was text on the flip chart, every one knew that something important had happened.

4.3 Whiteboards

It was apparent in the two case studies that whiteboards were important in large police operations. Every room used for either the support of staff or the command posts had whiteboards, which were used as operational plotting tools.

In the support of staff rooms, one whiteboard was used as a place to plot all planned events in chronological order. If there was a change in the program, the information was updated and also marked as "updated". On another whiteboard the support of staff plotted all important decisions given either by the police operational commander or the strategic commander (which of course could also be found in the common folders in the Intranet). One whiteboard was used to plot the important events that took place, i.e. a timeline of the activities that affected the police operation. Example of this timeline is seen in figure 2.

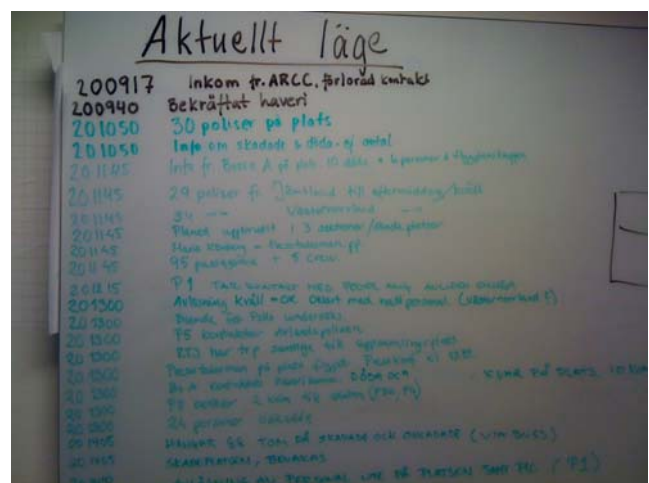


Figure 2. One whiteboard used to plot all events in chronological order

The two command posts that were set up during the police operation in Åre used boards in the same way. They used them to plot decisions, planned activities, and past activities. One

difference between the command posts and the support of staff during the police operation in Åre, was that on the whiteboards at the command posts, you also found descriptions of individuals that the police intelligence unit had analyzed and identified as potential threat to the police operation. You could also find pictures of these persons attached to the whiteboards with magnets. When a whiteboard was filled with content, as can be seen in figure 2, the police officers in the temporal command setting, either prioritized to document the content in a Microsoft Office Word™ document, or they brought in another whiteboard on which to continue writing. Sometimes they took a photo of the content.

During stressed and more chaotic situations the whiteboards played an important role in documenting ongoing activities and decisions taken. The whiteboards was easy to use and they also was accessible for all individuals in the room. Many persons could also use the whiteboard simultaneously, which made them usable during stressed situations.

4.4 Problem summary

One can easily see several problems in the way important information was recorded during the police operations used as cases in this research.

The problems are presented in relation to what can constitute the essence of document/records management, i.e. capturing, storing and dissemination of information:

Capturing. Important information is recorded on whiteboards and flip charts, which are rather temporal in their structure and implicit, which make capturing problematic. In the capturing phase we also include the capturing of metadata needed to understand the record in the future. In these two case studies both digital and analogue information is captured. This information is per definition records, as it is information that is created and maintained as some evidence over the ongoing business.

Storing. Storing is related to capturing, but is about how to store the captured record. The records that are captured in Microsoft Office Word™ have options to be stored with quality, but they are only stored on a file server in common folders. The storing of the analogue information is very ad hoc managed. Sometimes the flip chart is preserved, and sometimes the whiteboards are photographed, but this is not standard procedure.

Dissemination. During large police operations, dissemination of information is important. But dissemination of information is also important after the operation to make it possible to gain knowledge of the lessons learned from the operation. With the very analogue and temporal way to record important information during large police operations the dissemination of information both during the police operation, and after the police operation is extremely problematic. Search of recorded information is also problematic due to the same kind of arguments.

Other problems. In order to be able to evaluate large operations and in worst case investigate mistakes, traceability and accountability is two important functions that results from a qualitative recordkeeping. If knowledge from large operations should be sources for knowledge one need to further establish new methods and technologies to capture, store and disseminate the records born during these events and make sure that the necessary metadata is added. In the study no proof of a high level of knowledge amongst police officers during .

4.5 Digital preservation problem

If recordkeeping in crisis management should be an important tool for "applying knowledge from previous experiences of decision making to current and future decision making activities with the express purpose of improving the organization's effectiveness." [9], then the digital preservation is impossible to exclude. Searchability and access is not dependent upon that records are digital, but digital records can be distributed longer and accessed by actors far away. For example records created during the management of a large flooding in central Europe can be searchable and accessible for actors on another continent, who can learn from others by use the records. Therefore is it important to understand that digital preservation is embedded in modern recordkeeping. Following the record continuum model, the collective and cooperate knowledge can not be separated from the creation and capturing of a record [16].

5. CONCLUDING REMARKS

This article had an aim to increase the knowledge about the challenges and problems related to recordkeeping in large-scale police operations, and especially recordkeeping in temporal command settings.

The problems identified are all related to the analogue management of important records that are born on flip charts and whiteboards, but also to an overall lack of structure and technical support concerning document management within the police.

A continuing of this research is to study command settings where they test and evaluate more advanced technical aid, to see if the problems will be minimized or not.

6. REFERENCES

- [1] Gladney, H. M. 2004. Trustworthy 100-Year Digital Objects: Evidence After Every Witness Is Dead, *ACM Transactions on Information Systems*. 22, 3, 406-436.
- [2] McKemmish, S., Piggott, M., Reed, B., & Upward, F. 2005. *Archives: Recordkeeping in Society*, Wagga Wagga: Charles Sturt University, Centre for Information Studies.
- [3] Menne-Haritz, A. 2001. Access-the reformulation of an archival paradigm, *Archival Science*. 1, 57-82.
- [4] Sprehe, T.J. 2000. Integrating Records Management into Information Resources Management in U.S. Government Agencies. *Government Information Quarterly*. 17, 1, 13-26.
- [5] Nunes, M. B., Annansingh, F., Eaglestone, B., & Wakefield, R. 2006. Knowledge management issues in knowledge-intensive SMEs. *Journal of Documentation*. 62, 1, 101-119.
- [6] Chua, A.Y.K. 2007. A Tale of Two Hurricanes: Comparing Katrina and Rita Through a Knowledge Management Perspective. *Journal of the American Society for Information Science and Technology*. 58, 10, 1518-1528.
- [7] Murphy, T., & Jennex, M. E. 2006. Knowledge Management, Emergency Response, and Hurricane Katrina. *International Journal of Intelligent Control And System*. 11, 4, 199-208.
- [8] Chua, A. Y. K., Kaynak, S., & Foo, S.S.B. 2007. An Analysis of the Delayed Response to Hurricane Katrina Through the Lens of Knowledge Management. *Journal of The American Society for Information Science and Technology*. 58, 3, 391-403.

- [9] Jennex, M. E. 2005. What is Knowledge Management?. *International Journal of Knowledge Management*. 1, 4, i-iv.
- [10] Myers, M. 1997. Interpretative Research in Information Systems. In F. A. Stowell & J. Mingers (Eds.) *Information systems : an emerging discipline?* 239-266. London: McGraw-Hill.
- [11] Walsham, G. 2002. Interpretative Case Studies in IS Research: Nature and Method. In M. D. Myers & D. E. Avison (Eds.) *Qualitative research in information systems : a reader*. 101-113. London: SAGE.
- [12] Taylor, S. J., & Bogdan, R. 1998. *Introduction to qualitative research methods : a guidebook and resource*. New York, N.Y.; Chichester: Wiley.
- [13] Kvale, S. 1997. *Den kvalitativa forskningsintervjun*, Lund: Studentlitteratur.
- [14] Schön, D. A. 1983 *The reflective practitioner : how professionals think in action*, New York: Basic Books.
- [15] Nylén, L. 2006. *Operativ ledning : bedömande och beslutsfattande: lednings- och fältstabers vid särskild händelse : en handledning*, Stockholm: Rikspolisstyrelsen : CRISMART, Försvarshögskolan.
- [16] Upward, F. 2000. Modeling the continuum as paradigm shift in recordkeeping and archiving processes, and beyond - a personal reflection. *Records Management Journal*. 10, 3, 115-139.