

IMPLEMENTATION OF “VISION OF E-GOVERNMENT 2007” AT THE COUNTY ADMINISTRATION OF SWEDEN

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Abstract

In this article a current interview study is presented and discussed. A vision of E-government was formulated by the County Administration of Sweden and should be implemented at the end of 2007. The interviews focus on knowledge and attitudes towards E-government of personnel in the organisation, before implementation. The respondents mainly had a positive attitude towards E-government, although they also mentioned some negative aspects. The results of the study indicate that the implementation of the vision of “E-Government 2007” need to focus more on information, attitudes, and work culture issues, than on pure technology issues. Web-based information and education could be used in flexible forms, such as study circles, for the work-integrated learning needed in the implementation process.

Keywords: E-government, implementation, competence development, social aspects

1. INTRODUCTION

A vision for development and use of information technology (IT) (E-government) in public organisations was formulated by the Swedish government in a bill 1999 (Näringsdepartementet). According to the vision Sweden should become an information society “for everybody”. The use of IT should contribute to growth, employment, a sustainable society and equality. The public organisations should be precursors in this development, and contribute to increased availability of public information and services to Swedish citizens. Public authorities should be stimulated to develop “the 24-hour period authority” where public service and information should be available to the citizens at any time by using electronic self-services. Different stages were defined for the development of the “24-hour period authority”: 1. Packaged information, 2. Interactive information, 3. Personal services, 4. Services delivered in co-operation with different public authorities. Apart from the development of IT support, work procedures and attitudes also need to be developed and changed in this process, according to the vision.

Similar efforts towards the development of E-Government are found in many other countries. Most governments began outlining their visions some years ago and then tried to implement their visions. According to a recent global study of 23 selected countries were ranked according to their overall E-government maturity (Jupp, 2003). Four maturity groups were identified; Canada, Singapore and United States were ranked in the top category characterized as Innovative Leaders, while Denmark, Finland and Norway were part of the second group; Visionary Challenges. Spain, New Zealand and Japan e.g. were categorized as Emerging Performer and in the last group Platform Builders; we find countries such as Italy, Portugal and South Africa. There is a growing recognition that E-Government is not just about technology, but also redesign of organisation and work processes is needed.

A manifestation of the role EU can play was the E-Government conference in Brussels in 2001 (Liikanen, 2003). The conference showed a strong commitment to E-Government in Europe, but also discussed a lot of issues that will have to be addressed before E-Government becomes a reality.

E-Government has recently become a research field with many international conferences considering such issues. IT has been used for support and control of administrative routines for many years, but development of new technology now allows for adaptable applications which were previously not known in this form, more customer-oriented solutions can be established and maintained using IT support e.g. Four core elements usually are derived from E-Government: electronic public services, electronic internal cooperation, electronic production networks and electronic democracy and participation (Shedler & Summermatter 2003). The vision of E-Government for five different European countries (Denmark, United Kingdom, France, Switzerland, Germany) were analysed in a study (ibid.). The development towards E-Government seemed to be strongly driven by new technological opportunities. Gains in efficiency were reported as one of the main motives for implementation of E-Government. Motives of democratic participation had a markedly low degree of attention in all of the studied proclamations. All countries concentrated on the provision of electronic public services.

The National County Administration is one of the biggest public organisations in Sweden, divided into twenty-one separate county administrations situated in different regions. The organisation is divided into sixteen different departments, each responsible for different specialised areas as environmental issues, social issues, veterinarian issues etc. The employees dealing with matters in these areas mainly have an academic background and work as handling officers in the different expert fields. The County Administration of West Gotaland has about 650 employees dealing with about 150.000 matters each year. The organisation has formulated a vision and a strategy for the development of "E-government 2007". National government policies for E-government were taken as a starting point for the internal development work. A project group was appointed for the demanded development work. According to the vision the County Administration of West Gotaland should become an E-government authority at the end of 2007. Then work activities mainly should be dealt with using electronic documents, electronic communication and electronic information retrieval. Electronic services to the citizens should be produced and delivered irrespective of time and geographical location. The development presupposes increased electronic co-operation with other authorities. The development process should lead to increase internal efficiency, quality and insight into work activities (in Sweden we have a law allowing public insight to official public records).

This article focus on an interview study of current knowledge, and attitudes towards E-government before the implementation, among personnel at different departments and personnel categories at the County Administration of West Gotaland. According to the results of the study the implementation of the vision of "E-Government 2007" need to focus more on information, attitudes and work culture issues than on pure technology issues.

2. THE VISION OF "E-GOVERNMENT 2007"

The vision of "the E-government 2007" formulated by the County Administration of West Gotaland, influence the development of IT support, changes of the organisation as well as the work situation of the co-workers.

2.1. Development of IT support

Today many work routines are based on paper documents in the organisation. According to the vision managing matters will be more based on digital information. A new technical platform will be implemented, facilitating integration of new electronic devices and routines. New electronic services and support will be developed, both internal and external. New internal electronic support systems are supposed to contribute to increased control and efficiency as well as better quality of the work processes. Applications will be more complete. Security aspects will be focussed. Application routines will be simplified for the customers, and they will have better insight into the work process as well as more direct communication with the organisation. Different sphere of activities of the

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organisation should be reviewed and documented as basic data for the coming system development process. Different routines will be ranked in order of priority. Such routines will be prioritised that are relatively simple to automate and are supposed to lead to organisational profits as well as customer benefits.

2.2. Organisational changes

The communication of the co-workers are supposed to be more flexible, a fact that could effect internal communicational structures and control of the organisation. External communication with customers and other organisations will be developed. Such changes are not easy to predict in detail, as lot of informal communication will be affected, as well more formal communication. Many work processes will be revised, parallel work procedures will be developed and work processes will be integrated. The overview and control of the work process will increase (different work aspects will be more visible e.g.). The role of the IT department will be strategic in this development process.

2.3. The work situation for the co-workers

The change of work processes and communicational structures will change the work situation for the co-workers in different ways. Demands on intensive and effective work will increase. Today most of the co-workers are middle-aged and the distributions of IT knowledge are uneven in the organisation. New competence is needed for many co-workers in order to deal with matters electronically. Probably increased educational efforts are needed. Initially there is also a need to spread information about the vision to all co-workers in the organisation. Critical aspects of success for the development work are probably attitudes and motivation towards the vision by the co-workers.

THE INTERVIEW STUDY

3.1. The design of the study

The attitudes, knowledge and motivation of the personnel are important aspects affecting the implementation and use of E-government at the National Board of West Gotaland. Therefore an interview study was initiated in order to survey present situation before implementation of E-government. The result of the interview study was expected to guide the design of information, education and implementation work. Different personnel categories such as administrative assistants, handling officers and managers were interviewed at different departments. The society building authority (SW. Stadsbyggnadskontoret) was chosen for the first set of interviews. The authority was located in three different places in the County Administration of West Gotaland. This first set of interviews will be followed by similar interview studies at other authorities at the County Administration. In this article the interviews from the society building authority is reported in a summary.

Five persons from the different personnel categories and the different geographical locations were interviewed. The interviews were semi-structured and took about forty-five minutes each. The interviews were tape-recorded and written down word by word before the analysis work. The respondents were asked about their attitudes and knowledge about E-government. In what ways do they think E-Government will influence their work situation and work routines, the organisation, competence, work culture, co-operation? Which positive or negative consequences do they think the implementation will lead to? They were also asked about appropriate actions needed for the implementation of E-government, (e.g. information, education, changes of attitudes and motivation, organisational aspects, development work).

3.2. The work roles

The handling officers at the society building authority mainly deal with municipality detail plans and survey plans. The matter is often prolonged, and involves a lot of contacts with municipality
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employees and local politicians. The administrative assistant deals with the daily post routines make registration in the computerised diary system (Diabas), and also deals with the local archives. The managers work as coaches for the handling officers. They also deal with especially problematic and controversial matters. The personnel use computers a lot in the daily work. An internal developed Geographical Information System (GIS system) is used e.g.

3.3. The respondents ideas of E-Government

The respondents had not yet heard so much about internal information about the Vision of E-Government 2007. The subject had been discussed at some regular personnel meetings, but not in detail. The administrative assistant seemed not to have thought very much yet about the concept of E-Government. They had discussed the subject some week ago at personnel meeting for the administrative personnel, but they did not think the work routines would be affected. The managers did not think either that the work roles would be affected very much. There are much more contacts with municipality employees, compared with private persons, in the dealing of the matters in this authority. These contacts were not expected to be affected very much.

Most of the respondents mean that E-Government has to do with increased possibilities for citizens (irrespective of time and geographical location) to receive digital information from the County Administration using Internet facilities. The diary and archives seemed to be very important for this information retrieval, and should be used in a more effective way, according to the respondents. The diary was defined as “the heart” of the work activities. Today most of the handling officers do not register their measures themselves in the diary system. Instead they leave this registration work to the administrative assistants.

The respondents emphasise that they use many computer routines in the daily work, that could be defined as part of E-Government. A lot of planning information is sent in digital form in the information exchange process with municipality employees. The personnel also use a user-friendly advanced GIS-system a lot. All maps are however not in digital form yet.

3.4. Change of attitudes and culture

The respondents mainly thought that the implementation of E-Government has more to do with change of the employees' attitudes and culture of the work place, compared with technical solutions. There is also a need to redesign some work routines, and make negotiations about rules for those routines. Today there is a lot of signatures on paper documents that are unnecessary. Archive rules need to be reviewed. A handling officer mentioned that they had discussed the archive rules for about fifteen years, without making necessary completion. The diary routines were also criticised by some respondents for not being effective and secure.

One of the handling officers compares the E-Government with the internal computerisation in the eighties. He meant that at that time change of attitudes and culture seemed to be almost 100% of the development work. Attitudes towards the use of paper documents instead of computer documents could also be a culture issue. People seem to like to read and keep paper documents at least big documents and survey maps. It is difficult to get a comprehensive view of a big map on a computer screen, but it cost money and effort to print such documents. Some respondents also stress that there should be a correspondence with the increased openness of the computer routines of the E-Government and internal manual routines. Clients should be met by the same attitude from the authority irrespective whether they visit the Internet home page, or make personal visits to the office. The respondents were also asked about positive and negative aspects of E-Government. All respondents mainly had a positive attitude towards the E-Government and meant that E-Government could reinforce the openness of the public organisation, and facilitate the retrieval for the citizens of public documents. Some of the respondents were confused about the long time elapsed in order to make those documents more available. They don't think this is mainly a technical issue, instead personal attitudes and work culture seem to matter in the highest degree. Some of the respondents thought there could be a risk of more impersonality of the work, when more contacts are computer-

mediated contacts. One respondent was worried about the durability of digital information in a long-term view.

All respondents mean that information and education about the vision of E-government 2007 should be well rooted on a local level, at different departments. Information adjusted to local situations is requested. The vision could be discussed at a local level in group discussions and work place meetings. Some of the respondents seem to have a negative attitude towards complete education courses defined by the top level of the organisation. Instead a bottom-up strategy is requested.

4. DISCUSSION

4.1. Consequences of E-Government

The vision of E-Government usually is expressed in a positive way in policy documents. The contribution of use of IT is expected to contribute to increased efficiency and quality. But effects of IT use in organisations could lead to positive as well as negative consequences. It is important to be aware of common IT problems in order to avoid these, in the development and use process. The design of IT systems are made by people, and affected by their intentions, interpretations and co-operation. In an evaluation study of an electronic diary system Goldkuhl and Röstlinger (2001) found that some of the earlier search possibilities of the manual system were missing in the new electronic system. The users therefore had to add certain manual routines to the computer routines. The handling of this information hence became more complicated for the users than before. But the system also implied other opportunities compared with the earlier manual routines. Information about matters and decisions could in general be retrieved faster than before, e.g. during phone calls from the clients. The respondents of the interview study mentioned positive examples of user-friendly system, such as the GIS-system, as well as systems that were more complicated to handle, as the computerised diary system.

IT systems could be used in public organisations for realisation and implementation of political decisions and rules. Formalised information is programmed into the system. In this way the standardisation of the handling of different matter could be increased. Then it is important with adequate translation and transformation of those decisions and rules into the system. Centralisation of control and power could also be a consequence of increased use of IT systems in government authorities, according to a study by Wiberg and Grönlund (2001).

Some respondents of the interview study thought that the work could be more impersonal using more computer-mediated communication and systems. When IT systems are implemented and used, it could be difficult to make changes, leading to preserving of rules and routines. A complex IT system could act as an institution in an organisation (Grundén, 1992) defining norms and behaviour of the personnel. The personal responsibilities could be somewhat reduced, when “the system” defines the rules for decision-making and handling of different matters. Of course, there usually also are opportunities with IT support; The handling of matters could be made in an more equal way and faster, information about a matter could be more complete. Some respondents of the study mentioned that the use of more computerised diaries and archives could lead to increased justice security. The handling of matters was also expected to be made faster, to some extent.

4.2. Implementation of E-Government – a technical or social approach?

As the results from the interview study indicates, it seems to be important to have not only a “hard systems view” on the implementation process, according to the terminology of Checkland (1991). He differs between hard systems thinking and soft systems thinking. According to Checkland it is important to identify “the root problem” of a problem situation and to determine whether a problem is mainly of technical or social character, in order to find proper solutions. It is not unusual to propose a mainly technical solution for a problem that mainly has a social character.

The results from the interview study indicate that important implementation aspects of E-Government has more to do with social aspects such as work routines and work roles instead of technical solutions.

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Therefore it is also important with relevant competence development leading to relevant knowledge of the personnel as well as relevant design of the system. But often implementation of electronic services is mainly seen as a technical project, mainly focussing technical issues (Grönlund, 2001). Then important aspects such user and use aspects, as well as organisational aspects could be neglected.

Competence development of the personnel is important for the success of the implementation and use of the IT systems. Relevant and continuous information and education of the users could facilitate the development and use process of IT systems in a municipality administration, according to a study by Ranerup and Nilsson (2001). In the study a need for such competence development was identified among the users. It seemed also important to gain approval from the users for visions and plans guiding development work. Several of the respondents of the study did not know about such goals and visions of the development work, a fact that affected their use of the system in a negative way. The education the respondents attended had focussed mainly on technical aspects. They also requested education focussing more on organisational and work routine aspects. The respondents asked for individual adapted education and advice in the actual work situation, or in smaller groups, instead of education for large groups. Seminars and workshops could also be relevant competence development forms.

The respondents of the interview study reported in this article, asked for information and education adjusted to the local level of the organisation. They had not heard very much about the vision of E-government 2007. They preferred a bottom-up strategy instead of top-down. There seemed also to be more problems related to work process issues, instead of technical issues, according to the respondents.

The increased use of IT systems in government administration could lead to increased responsibilities as well as broader and deeper competence field for the personnel. IT has contributed to job enlargement in tasks performed by public employees, across a variety of types of public agencies and levels of government, according to a systematic review of research findings (Andersen 2004). The effects were more mixed with respect to IT related impacts on job satisfaction. In some cases employees report that IT has increased their job satisfaction, e.g. more control of the work situation. But also negative effects were reported in more than one-third of the studies, due to such consequences of IT as social isolation, and reduced synergism from the reduction of face-to-face peer interaction. The absence of IT skills generated, job anxieties for some end users. There is a need for integrating communication and educational programs for end users in the development process (ibid.)

4.3. Work-integrated learning

Internal web-based educational courses for E-Government issues could be a way of learning for personnel at the County Administration. Such a course could easily be distributed to many persons. They can study the course regardless of time and geographical location. Web-based courses could be designed in more flexible ways compared with traditional courses. The students could study individually or in organised learning groups. The courses could be self-study courses or teachers and instructors could be involved.

The author has participated since 2002 as a researcher in a project group for the development and implementation of The County Academy (SW. Länsstyrelseakademin) at the County Administration in West Gotaland. The project group consists of personnel from the university as well as from the county administration. The County Academy should be responsible for the development, implementation, and distribution of internal web-based courses. The author made an evaluation of the first course produced (Grundén 2003). This course (the Diabas course) was a web-based course for dealing with the official registers in the organisation. The students' experiences of the course were mainly positive, according to the evaluation. They appreciated the flexible forms of the course and found the contents relevant, although some students asked for more traditional educational forms in

study groups. A majority of the students also had problems with getting time for the course, due to heavy workload.

Internal web-based education could be seen as part of the research field work-integrated learning. Earlier research in this field mainly has focussed different e-learning systems for distance courses in school teaching. But learning at work has more dimensions, which need to be considered compared with learning in educational institutions (Boud & Garrick 1999). A common overall goal for internal courses in organisations is that they should contribute to new knowledge for the students in order to improve their work situation and work processes.

The results from the interviews could contribute to a relevant design of contents and forms of web-based courses for the implementation of E-government. There seems to be a need to discuss E-government issues in smaller groups. Study circles could be appropriate educational forms. Then centrally distributed information could be combined and discussed with the local experiences.

5. CONCLUSIONS

As the interview sample is small (five interviews on one department), only preliminary research analysis is possible to make. A more thorough analysis will be made when all fifteen interviews on three different departments of the County Administration are made. The interviews made indicate that implementation of IT need to be more aware of both positive as well as negative consequences of the implementation and use, in order to avoid negative consequences. Some negative consequences could probably be avoided when more analysis of the work situation are made before design and implementation.

A thorough analysis of the problem situation and work before the implementation also could identify important social aspects, in order to find proper solutions. Social and organisational aspects are often neglected when electronic services are implemented. The interview results indicate that implementation aspects of E-Government has more to do with social aspects instead of pure technical issues. The respondents requested relevant competence development during the implementation process and stressed that information and education need to be adjusted to the local level of the organisation. They preferred a bottom-up strategy instead of a top-down. Study circles or group discussions could be relevant forms for competence development for the local level. Flexible internal web-based courses could also be relevant both for individual learning as well as group oriented learning.

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