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DEVELOPMENT WITHOUT STRATEGY

- THE CASE OF WEB-BASED HEALTH CARE SERVICES IN SWEDISH CITY COUNCILS

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Abstract

This article analyses the relationship between the development of web-based health care services and the strategies (formal and informal) which are supposed to guide their growth in the Swedish county councils (regions). The analysis is based on a mail questionnaire that was sent to and answered by all twenty-two county councils in the spring of 2004. The results show that all councils have a website on which they provide basic services, that about half of the councils provide advanced services and that all councils state that they are engaged in the development of novel services. About two thirds of the councils say that they do not have a formal strategy for the development of web-based health care services. The councils adopt an informal strategy when they rank the importance of various development ideals, but this strategy lacks credibility as it does not give priority to conflicting ideals. Because of the lack of strategy, insufficient integration of systems and coordination of activities have emerged as a major barrier to development and usage of e-services. In brief, the situation can be described as 'development without strategy'.

Keywords: e-government, e-health, public sector reformation, strategy, web-based services

1. Introduction

The rapid development of electronic government (e-government) has created expectations of a radical reformation of the public sector. "For the first time since the creation of the modern welfare state, there is now a real opportunity to 'reinvent government'" [Silcock, 2001, p. 88]. Most of the excitement has focused on the Internet, but it is clear that information and communication technologies affect public administrations in many more respects than through the Internet. E-government is supposed to make the production of public services cheaper, faster and more accessible (e.g. [Chadwick and May, 2003; Gasco, 2003; Lenk, 2002; McNeal et al., 2003; Scavo and Shi 2000]).

In many cross-national benchmarking studies, Sweden, together with the other Nordic countries, the United Kingdom, the United States and Canada, and in some respects, Australia, is ranked as one of the leading countries with regard to e-government (e.g. [Cap Gemini, 2004; Eurostat, 2005; IDC, 2002; The Office of the e-Envoy, 2002]).[1]

In most countries, the development of e-government is primarily aimed at web-based services which can be accessed by citizens via the internet [Kunstelj and Vintar, 2004]. Swedish public institutions have been developing web-based services (e-services) since the middle of the 1990s [Amnå, 2001; Grönlund, 2003]. For an overview of the supply of public e-services in Sweden, see the Swedish Agency of Public Management [2004a, 2004b, 2005a].

The Swedish approach to e-government is characterized by a high degree of decentralization. The Government has formulated the 24/7 agency vision for state agencies. Each independent agency is responsible for its own business systems and for the public services it provides or may come to provide [Swedish Agency for Public Management, 2005b, p. 11]. The 24/7 vision does not apply to municipalities and county councils (regions). Municipalities and counties are responsible for formulating their own e-service goals and strategies.

Despite the rapid development of web-based services in the Swedish public sector, and the responsibility for municipalities, county councils and for individual state agencies to develop e-service strategies, the strategies which are supposed to guide the development of web-based services remain largely unexplored (cf. [Grönlund and Ranerup, 2001; Åström, 1999]).

The health care sector is an important area of e-government in Sweden as well as in many other welfare states [Rosén, 2003; Swedish Federation of County Councils, 2002a,2002b], see also [Lindh and Wiklund, 2003]. For an overview of the development of e-government arrangements in the health care sector in the member states of the European Union, see [Silber, 2003]. In Sweden the state, the county councils and the municipalities are the key actors in the health care sector at the national, regional and local levels [Gustafsson, 1999, pp. 18-45]. Together with the Swedish Association of Local Authorities and Regions, the Government has agreed upon the preparation of a national e-service strategy for the health care sector. A national group has been appointed to formulate the strategy that will be presented by the end of 2005 [Swedish Agency for Public Management, 2005b, p. 11].

The purpose of this article is to contribute to our understanding of the relationship between e-government strategies and the development of e-government arrangements. More specifically, the main aim is to explore the relationship between the development of web-based health care services and the strategies (formal and informal) that are supposed to guide their progress in the Swedish county councils (regions). Another aim is to identify barriers to development and usage of e-services and thereby give guidance on matters that are important to be dealt with in (future) e-service strategies.

It is important to explore the relationship between e-government strategies and the development of e-government arrangement. E-service strategies have been put forward as a prerequisite for e-service excellence and as a means for taking e-services to a higher level, both in terms of development and usage (e.g. [Voss, 2000]).

[1] For a critical discussion of various methods for monitoring e-government development, see Kunstelj and Vintar (2004).

In this connection, the importance of strategies in rational decision-making should be noted. Traditional views of the policy process describe decision-making as a sequential process including the phases of formulation, adoption, implementation and evaluation. Formulation is often divided into two phases, one involves problem definition and the other where problem-solving strategies are presented (e.g. [Tiesman, 2000, p. 940]). Accordingly, strategies are viewed as a key aspect of rational problem solving.

The outline of the paper is as follows: In the following section, section 2, the method and materials are described. In section 3, the development of web-based health care services in the Swedish county councils is characterized. In section 4, the county councils' strategies (formal and informal) for the development of web-based health care services are explored. In section 5, barriers to development and usage are identified. Finally, in section 6, the results are summarised and conclusions are drawn.

2. Method and Materials

The investigation is based on a mail questionnaire which was distributed to the twenty-two Swedish county councils in the spring of 2004. The county councils are regional public institutions governed by a popularly-elected body. They have an independent status within the Swedish national political system. Health care is the councils' main responsibility, but recently they have increased their involvement in regional development in areas such as communications, culture and trade and commerce [Gustafsson, 1999, pp. 33-39]. All councils have answered the questionnaire.

The questionnaire queried the councils on when they started to develop web-based health care services, what health care services they offered at present on their websites and what services they planned to provide in the future.

The notion of services is given an inclusive definition. It includes everything from the very basic information services, such as contact information and information about production units, to advanced interactive services, such as booking services and health counselling. A general characteristic of e-services is that information is provided and/or exchanged via an information and communication technology network.

Other queries were concerned with whether the councils had formal strategies for the development of web-based health care services and, if so, what these strategies stated. The councils were asked to mark the degree of importance they attached to four development ideals in the building of their web-based health care services.

Finally, the county councils were asked to identify barriers to the development of web-based health care services and professionals' and clients' usage of such services. As noted above, it is important to identify barriers in order to highlight questions that require urgent handling in e-service strategies.

The questionnaire was sent to the managers of information and communication technology issues at the councils. These officials should be familiar with the formal strategies as well as the routines for the development of web-based health care services within their organisations. In order to assure anonymity, the material is presented in such a way so as to make it impossible to identify the answers given by individual councils.

3. The Development of Web-Based Health Care Services

The results confirm earlier findings that all councils have a website on which they provide web-based services (cf. [Rosén, 2003; Swedish Agency for Public Management 2004a, 2004b, 2005a]). Most councils published their first websites between 1995 and 1998, but some started as late as 2001. This finding is also in line with earlier research (cf. [Grönlund, 2003]). Most councils introduced their first web-based health care services approximately two years after the creation of their website, that is, between 1997 and 1998. However, in two cases the first web-based health care services were provided as late as 2001 and 2002. The development over time of websites and web-based health care services is illustrated in Figure 1.

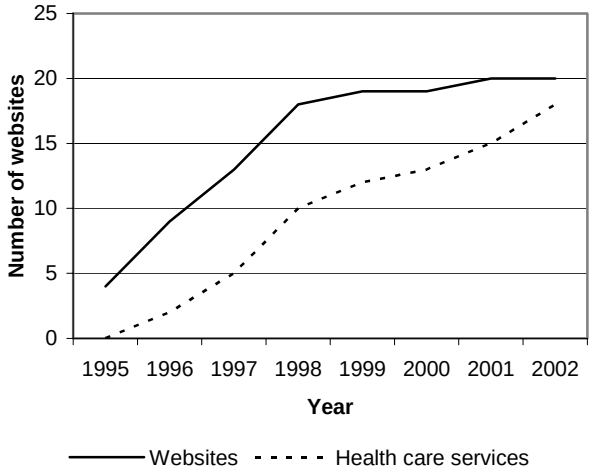

Figure 1. Development over time

3.1. Current and Future Web-based Services

It is clear that the county councils provide a number of web-based health care services. A summary of these services is provided in Table 1.

Services	n	%
Access to case notes	1	5
Booking and cancelling appointments	8	36
Contact information	21	95
Information about how to make a complaint	20	91
Information about the political leadership	21	95
Information about the production structure	22	100
Information about the services provided	22	100
Price information	20	91
Renewal of prescriptions	10	45

Table 1. Current web-based health care services

Six services are provided by almost all the councils: contact information for different production units, information about how to complain against decisions or treatments, information about the political leadership of the public health care production (i.e. information about the political parties which are represented in the elected governing body and the spheres of responsibility of their representatives), information about the production structure (i.e. information about different production units and the services

they provide), information about the supply of health care services and price information.

Advanced web-based health care services are less commonly provided. Eight councils provide the ability to book and/or cancel appointments. Ten councils offer the renewal of prescriptions. Access to case notes is made available by only one of the twenty-two councils.

The councils were also asked whether they were engaged in the development of new web-based health care services and, if so, which services were they planning to introduce and when. A summary of the services which the councils are planning to offer in the foreseeable future is provided in Table 2.

Services	n	%
Access to case notes	5	23
Booking and cancelling appointments	8	36
Consultation with medical expertise	3	14
Information about the county councils	4	18
Information about the services provided	3	14
Renewal of prescriptions	2	9
Miscellaneous	4	18

Table 2. Future web-based health care services

All twenty-two councils state that they are engaged in the development of novel web-based health care services. What services a particular council is planning to introduce apparently depends on their present provisions.

The councils providing only basic web-based health care services are primarily planning to introduce advanced services, such as the booking and cancellation of appointments, renewal of prescriptions and access to case notes. These services are already provided by the most progressive councils. The councils offering the advanced services are planning to introduce more advanced services, i.e. information about methods of self-treatment, consultation with medical expertise and forums in which citizens can discuss health care issues as well as exchange experiences and organise collective action. In brief, the plans for future developments depend on the current status with regard to web-based health care services.

4. Strategies – Formal and Informal

Strategies can be formal or informal. In top-down approaches to policy analysis polices tend to be defined with reference to formal institutions. For example, policy can be defined as “a set of interventions from policymakers to policy implementers that spell out both goals and the means for achieving them” [Nakamura and Smallwood, 1980, p. 13]. Bottom-up approaches to policy analysis tend, in contrast, to focus on practice, and policy is in consequence given a definition that does not connect policy with formal institutions per se. For example, policy can be defined as “a set of ideas and the practical search for institutional arrangements for their realization” [Hjern, 1987, p. 3]. The following analysis explores both formal and informal strategies for e-service development.

Six councils state that they have a formal strategy which formulates objectives for the development of web-based health care services while fifteen state that they lack a formal strategy. The system manager at one of the councils was unaware of whether or not a formal strategy exists. The fact that the official in charge of the development of web-based services does not know whether or not there is a formal

strategy is interesting since it raises questions regarding the influence formal strategies have over practical development.

In order to explore informal strategies, the councils were asked to mark the degree of importance they attach to four ideals guiding the practical development of web-based health care services on a five point scale ranging from very important to not at all important. The four development ideals are efficiency (E), confidentiality (C), availability (A) and integrity (I). The results are summarised in Figure 2.

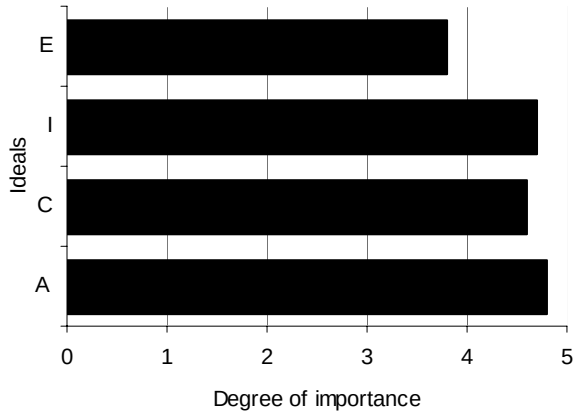

Figure 2. Development ideals

Efficiency refers to services of a certain quality that are produced in inexpensive ways. Confidentiality ensures that information is only accessible to authorised parties. Integrity means that information can only be modified by authorised parties or in authorised ways. Availability means that information and services are accessible to authorised parties and at appropriate times (see [Pfleeger and Pfleeger, 2003, pp. 9-12] for more detailed conceptual definitions).

The system managers at the councils give availability, integrity and confidentiality high priority. The mean values for these development ideals are 4.8, 4.7 and 4.6 respectively on a scale ranging from one to five. Efficiency is given a lower priority. The mean value of this ideal is 3.8. This pattern suggests that the councils give the needs of the client in terms of availability, integrity and confidentiality a high priority while efficiency is given a lower priority.

However, whether it is realistic to give all four ideals a high priority is open to question. There are obvious tensions for example between availability and confidentiality and between integrity and efficiency. These tensions cannot be eliminated – they must be balanced. It is appropriate to deal with trade-offs between availability, confidentiality, efficiency and integrity in strategy documents.

5. Barriers to Development and Usage

The study also investigates barriers to the development of web-based health care services and to clients' and professionals' usage of such services. This is important in order to give guidance on questions that require urgent attention in (future) e-service strategies.

The councils identify a number of short- and long term barriers. Examples of short-term barriers are: 'the insufficient integration of different systems makes it hard to increase the number of services', 'the low trust in the security of the systems', 'the behaviour in the health care sector', 'the unwillingness of the personnel in the health

care sector to use the technology', 'the unwillingness of the personnel to accept bookings over the internet', 'maintaining confidentiality, integrity and availability', 'to develop both efficient and secure electronic communication', 'the lack of resources', 'the insufficient marketing of services', 'the lack of strategies for information technology applications', 'the limited cooperation between administrative authorities to find standardised solutions', 'the lack of a national strategy for selection of systems', 'the low degree of standardisation within and across county councils', 'the financial limitations', 'the fact that the county councils are very large and complex organisations' and 'the resistance among professionals to use the web as a communication channel for the client'.

Examples of long-term barriers are: 'legislative matters regarding the access to case notes', 'the behaviour in the health care sector', 'the limited integration of the internet and other information systems', 'the difficulty to find secure ways to identify clients using e-health systems', 'keeping up with the technological development without reducing the security', 'citizens limited interest in using the services provided', 'the unwillingness of the personnel to use the internet as a means of communication', 'the limited integration of the internet and other systems in the health care sector', 'the system heritage and the lack of structure makes it impossible to integrate the systems and develop general services', 'developing secure systems', 'the personnel's limited interest in technology', 'security', 'the low degree of integration of various information systems', 'the difficulty to develop new applications fast enough', 'developing systems that ensures integrity', 'developing cost efficient systems', 'integrating different systems in order to make the service production more efficient', 'the lack of resources', 'the insufficient standardisation of systems', 'the poor hardware' and 'the difficulty to develop robust systems that ensure the integrity of the clients'.

Clearly, the councils identify a number of barriers to the development of web-based health care services and professionals' and clients' usage of such services. The situation is somewhat complicated by the fact that some of the short-term barriers are also found among the long-term barriers and vice versa. Nonetheless, it is possible to identify three dimensions or 'major' barriers in the material.

A first major barrier is the insufficient integration of the established information systems and the lack of coordination between the development activities within the county councils. A second major barrier is the technological and legislative obstacles that have to be overcome in order to build secure systems. A third major barrier is professionals' and clients' reluctance to use web-based services.

These results reflect the lack of strategy. Questions regarding integration of information systems and coordination of development activities have to be handled at a strategic level. Another matter of a strategic nature involves the specification of a reasonable security level. The specification of this level has to be based on a balancing of the ideal of confidentiality versus the ideals of availability and integrity. Furthermore, it is important to have a strategy not focusing only on the development of services but also on how professionals and clients can be convinced to use the services. Services are of no value viewed from the perspective of production of health care if they are not used. To convince professionals and clients to use the technology is of course easier if it can be shown that e-government makes the production of services cheaper, faster and more accessible.

6. Summary and Conclusions

This article has analysed the relationship between the development of web-based health care services and the strategies (formal and informal) which are supposed to guide their progress in the Swedish county councils. The analysis is based on a mail questionnaire that was distributed to the twenty-two Swedish county councils in the spring of 2004.

The results show that all Swedish county councils have a website on which they provide basic services, i.e. information about how to complain against decisions or treatments, the political leadership of the public health care production, the production structure, the supply of health care services as well as contact and price information. Advanced web-based health care services, such as the booking and cancellation of appointments, renewal of prescriptions and access to case notes, are less commonly provided.

All councils state that they are engaged in the development of additional web-based health care services. The services that the councils are planning to develop seem to depend on what they presently offer. The councils which only provide basic services plan to develop the advanced services already offered by the most progressive councils. The most progressive councils are planning to develop even further by providing additional advanced services.

The fact that all councils should develop additional services raises questions regarding the strategies guiding their development. Only six out of twenty-two councils have a formal strategy for the development of web-based health care services.

In this connection, it is important to remember that the information concerning strategies was collected through a mail questionnaire to managers of information and communication technology at the county councils. This data collection technique presupposes that strategies for development of web-based services are primarily a concern for the information and communication technology department. However, it might be the case that the development of web-based services is closely integrated with the production of traditional services and the departments responsible for producing these services. If this is the case, county councils might have a number of different relevant strategies for the development of web-based services. Nonetheless, the results indicate that developers of e-services have a limited knowledge of e-service strategies.

Furthermore, the fact that only six out of twenty-two councils have a formal strategy does not mean that the development of web-based health care services is not guided by ideals. The county councils give the four development ideals – availability, confidentiality, efficiency and integrity – high priority. This suggests that the councils give the interests of the clients – as expressed in ideals of availability, credibility and integrity – high priority while efficiency is given lower priority. The weight the councils give to the four development ideals can be viewed as an informal e-service strategy.

The fact that the councils give all four development ideals high priority is problematical in the sense that it indicates the possibility of conflicts between ideals. More specifically, this indicates that it is likely for conflicts between the goal of efficiency set by the political leadership and the goals of availability, confidentiality and integrity expressed by the administrators to occur. The balancing of the different ideals is an urgent task requiring to be dealt with at a strategic level.

The investigation has also identified a number of barriers to the development of web-based health care services and to clients' and professionals' usage of such services. This is important in order to give guidance on questions requiring urgent attention in (future) e-service strategies.

The system managers identify insufficient integration of information systems and a lack of coordination in the development. This is a major barrier to the development of web-based health care services and is in line with the observation that many county councils do not have formal strategies for development. The security level of systems and the attitude of clients and professionals towards usage are two other issues that must be dealt with at the strategic level in order to lay the groundwork for an effective development and usage of web-based health care services.

Hence, the barriers identified suggest that it is not enough to focus on technological matters in e-service strategies. The implication is that for e-service strategies to be successful, they must also deal with the issues of coordination within organisations as well as the demands and attitudes of developers and users.

The results show that the Swedish county councils are developing web-based health care services, but most of them lack the formal strategies required to guide this development. However, the councils pursue an informal strategy when they rank various development ideals. The high priority given to all four development ideals creates a credibility problem since an effective development presupposes trade-offs between different ideals. Due to the lack of strategies, the councils do not achieve sufficient integration of information systems and do not ensure satisfactory coordination in their activities. These emerge as a major barrier to the development of web-based health care services. In brief, the situation can be described as 'development without strategy'.

The results suggest that the development of web-based services can be significantly improved by the formulation and implementation of more advanced strategies. The study also identifies questions in need of additional research; questions regarding which additional knowledge would support the development of e-service strategies: How is the policy problem defined, i.e. is the goal of e-service development to reduce costs or increase user satisfaction, or both? What means do the existing strategies include? How is the implementation of e-service strategies organised? What are the effects of various forms of strategies on the development and usage of e-services?

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