Negotiating Information Technology: Politics and Practices of the Public Sector Web Production

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ABSTRACT

In this paper I do a preliminary investigation of the web production in one Swedish municipality. I implement Gä rtner & Wagners suggestion of thinking through three arenas when studying design processes: Arena A for individual projects, Arena B for the organisational layer and Arena C for the national arena. The arena C, the National politics draws up the ideological scene available for the information technology translations at the local level. The Arena B is a municipal political IT-vision document. The arena A is the analysis of an interview with a municipal web developer. I implement the analytical tools of the actor-network theory (ANT). I suggest that the web design process is a network of negotiations, where political documents, web producers, private companies, software, and time meet.

Keywords
Politics, public sector, web production, Sweden

INTRODUCTION
I am investigating information technology understandings, interpretations, and translations in the public sector i Sweden. The original main focus of my research was to study the co-operation between the technology staff at the IT-departments and the administrative personnel working with web-based information production. A rather straight forwarded and explicit perspective following the participatory design ideas and experiences. [1]

In quite early stage it became evident that the empirical material did actually not focus on the relations between the designers and the users. Perhaps this indicates that the boundaries between the designers and the users are not that firm and clear and where the place and function of the

user is becoming more and more blurred: "As they [=informati- on technologies] move from the realm of experts into the workplace and mingle much intimately with other activities, the idea of computer expertise and the boundaries between developers and users are questioned…". [2].

In the interview, there were people, machines, places, memories and experiences interacting and intertwining. The question that arose was: "How should one take care of all the different elements and bring them together into one analysis and one story of local information technology practices?"

If the process of the web production was a mixture of extremely various elements, the next question was how fruitful it would be to expand the notion of design to embrace a wider network of negotiations and actors. Joan Greenbaum and Dagny Stuedahl, who have studied design and development of commercial web sites, have implemented the ANT-perspective of negotiations and interactions between human and non-human actors in their analytical work: "Through a focus on negotiations between actors, and the translations and transformations needed to end up in a delivered product, we found it particularly useful for helping us to identify intermediary moments in time and place where designs, specifications and software code were changed through actions by people, prior events and pieces of the technical infrastructure (non human interventions)." [3] Inspired by the ANT-perspective I have tried to be sensitive when thinking about the actors of design not only limiting to people and their internal relations but bringing together humans and non-human actors.

I also became more and more conscious that the public sector information technology definitely does not exist in a isolated vacuum. Johannes Gärtner and Ina Wagner talk about three different kinds of parallel arenas in a context of system design and participation. [4] According to them there are different actor spaces involved in a design project. They use the notion of arena A when they talk about

designing work and systems at the local level. Arena B is the space for organisational frameworks. The third arena C is the political arena. What is important to think of is that these arenas exist parallel and influence each other. They do not though form a hierarchic pyramid, where the traffic (read control, steering, resources etc) is always and necessarily from top to down. Of course, if there are for example changes in the legislation system and funding opportunities, these changes directly influence the activities at the local level. The local level although has opportunityies for its own implementations and interpretations, and perhaps the Arena A is also a space for resistance or re-negotiations.

I have identified three parallel arenas following the thought lines of Gärtner and Wagner. I call these three arenas: National politics, Local politics and Local practices. In this paper I will present some of the main themes and findings from each of the arenas.

In the concluding discussion I will reflect how the idea of arenas and the ANT-perspective can influence the analysis of the processes connected to the design of municipal web. Would it be possible to think about the web design as a network containing a chain of negotiations? Can the arena thinking together with the ANT-perspective help to uncover and understand the complexity of the everyday design practices?

Arena C National politics

One of the key texts articulating the dominating national understanding of information technology in Sweden is the government bill "Ett informationssamhälle för alla" [Information Society for All] (later called GB in this article) with the proposition number 1999/2000:86. [6] A governmental proposition is a link in the Swedish legislative chain meaning that a proposition is a proposal for legislating new laws or changing already existing laws.

Theme 1 Hubris/to be best or at least among the best ones
One of the themes that seems to be very central in the text is to understand that information technology is a competition between nations, where it is of great importance that Sweden either is the leader or at least among the leading nations.

This theme is the umbrella theme where the landscape of necessity and importance is shaped. There is hardly any space for negotiations concerning 'if' information technology is important for the nation and the society. The bill states quite explicitly that information technology is *the* issue, which will lead the nation to welfare and among the leading nations.

Theme number 2 The loving and caring state
The bill very strongly reflects, reproduces and strengthens

the idea of the state that takes care of its citizens, like parents who know what is best for their children. This has been the ruling social democratic ideology in Sweden since the Second World War and known as 'folkhemmet' [people's home]. The main character of this 'folkhemmet'-ideology has been to build up a strong welfare system that guarantees social benefits, such as child care, health care and school education, for every member of the society

The same societal hug is also warm and inclusive when the bill talks about the gaps between men and women, people living in urban surroundings and in sparsely populated areas, people with low incomes and the immigrants and the tendency of the specific groups to use information technology less than other groups of the society. (GB, p. 16)

The caring and loving state is changing
The traditional ideology of the Swedish welfare state is based on a view that regards citizens as a collective. Thereby also the services the state provides are based on an ideology not supporting individual choices. Another basic principle has been the idea of the strong state and the strong public sector. The actual bill still supports the basic ideologies of the welfare state but also contains signs of change. One of these perspective changes is putting the individual citizen in focus and by stressing the active role of citizens in developing the democratic functions of the state.

The citizenship is not anymore a question of being a passive receiver of the public services but demands both being responsible for one's own choices and activating one's own opinions, claims and wishes. What the citizen can do is to more directly control the functions, decisions and directions of the authorities. The bill also opens up space for other actors to enter the public sphere. The state invites private and commercial actors to co-operate and collaborate with the public sector actors.

Everybody and everywhere: invitation/straitjacket
The official governmental direction for the IT-politics includes eight main sectors where the goal is to promote economical growth, employment, regional development, democracy and justice, quality of life, gender equality and equality in general, an effective public sector and a sustainable society. (GB, p. 26). These inclusive thoughts integrated with the idea of the loving and caring state can be interpreted, at least, in two contradictory ways. Either this bill is an honest invitation to all of us to join the information society and realizing the overwhelming and totalitarian changes of the society. The content of the bill can as well be understood that you are included, either you will or not, there is no place for resistance or hesitation. You are in; do not ask any questions. The bill describes information technology both as a technical and socio-political straitjacket, can be claimed.

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The government bill implies a strong IT-discourse. It is strong because it is a hybrid. It is a hybrid because it, in a very fuzzy manner, blends technology and society. Many of the citizens feel included, because there seems to be space for a wide audience. The IT-discourse as presented in the government bill is strong also because it mixes or integrates pieces from other strong discourses of the Swedish society. It combines the dominating gender equality discourse, the 'folkhem'- discourse, the new market economy discourse, the official environmental discourse and finally, the dominating discourse of technology that regards technology as the key factor for the prosperity of the societies.

Arena B Local politics
The 31st of May year 2000 the local council in a medium sized Swedish town accepted a document with the title 'The IT-vision for the municipality' (ITV later on in this text).

The good town
There is a strong focus on developing a municipality attractive both for its citizens and its industries. In the good town the focus is on the citizens. The story told by the IT-vision sounds like this: 'The municipality is 'open'. Its services are easy to access and the accessibility is not dependent on time or space. The municipality wants to communicate with its citizens and will listen to and study their opinions. The municipality is attractive also for its industries; a well-equipped infrastructure will act as a tempting factor. The town is a good place for everybody to live in; it will take care of the disabled and the women. The good town is inhabited by its active citizens. All partners, the municipality, the industries, the educational system, have reached a mutual agreement when talking about the importance of information technology for the future development.' (ITV, pp. 1-17).

The effective town
Beyond the construction of the good and attractive town to live and work in, lie other threads. Information technology demands or opens up possibilities to efficiency, control, steering and following-up. These thoughts can be found both when the vision document translates the visions to everyday organisational practices and when it talks about the development of the good town. The document refreshes the ideas and visions from 1970s of automatisation and computerisation connected to rationalisation and efficiency. [6] The document aims to develop clear goals for the administrative practices by introducing ideas of documented goals, control points, and steering. A digitalised version of taylorism, perhaps.

Keylines
When comparing the government bill with this municipal document it is quite apparent that they talk the same language. Both stress the further development of the Swedish welfare society based on the loving and caring public sector. Both documents also make it explicit that the welfare society is changing. The public sector will demand active citizens in the future. Citizens, who know what they want regarding public services. In this process information technology will be one of the main channels for the interaction and communication between the public sector and the citizens. Information technology will also be the space where the public services designed for the active citizens will be available.

The municipal document articulates high hopes concerning the development of the future promising a good living environment, deepened democracy and an equal society. These visions are not new; they have been the central part of the governing ideology of the Swedish version of the welfare state. What is new is that these ideas are embedded in a new technology.

Neither is the idea of the efficient and cost-effective administration new, not even when talking about how computerisation can be the key factor to save money and time. What might be new is that the dreams of the cost-and time efficiency are embedded in and motivated by the dreams of the increased service level of the public sector and an active citizenship.

Arena A Local Practices
I have interviewed one of the persons working with the IT-development in the same municipality where the vision document, I discussed in the previous chapter, was written and published. The person I discussed with is working with the development of the web site of the municipality.

People
The most central issue in John's web talk is actually people and the existing and non-existing co-operation between them. What this indicates is that he puts a great value and importance on the human relations involved in everyday IT-work. In John's talk a number of people with different positions and attitudes are mixed. He presents different categories of people involved in one or another way in the web production.

First, there are the enthusiasts who have visions and who initiate and encourage to find new solutions both concerning pure technical questions, such as software and database structures, and also organisational changes. The real enthusiast in this specific case is characterised by John, as follows: "He had competency of both IT and the organisational development. He had sketched how to tear down the borders. How to pee into the administrative borders. A tool to tear down the borders."

According to John behind the enthusiasts there are the persons who criticise and at least do not actively give

support to the ideas of the visionaries. In this actual case it is often the politicians who take this role. John says that: "Yes they [the politicians] do care. But they care afterwards. When they are not satisfied they care. But they do not care in before hand."

To the same group belong the persons inside the organisation who are, for one or another reason, uninterested, and who therefore might become the slow downers, or as John puts it: "There is a push inside the organisation at the same time when there is resistance in other parts of the organisation."

Somewhere in the middle of the two groups there is the group of people we might call cleaners or fixers. They are the ones who try to pick up the pieces when there is lack of money, delays of software deliveries, and uncommitted fellow workers: "[John has been talking about the passed deadlines and complicated situations both considering persons and software when he starts to talk about one particular person] who had to jump in and take responsibilities towards politicians...so he had to jump in and take care of keeping the project alive and seeing that it's functioning and that it develops and goes on..."

And John adds: "I was given four weeks to find a new publishing system and to be responsible for the installation. It was impossible, actually....She [now he talks about a woman employed at the municipality] worked like a dog, night and day."

The boundary object
John's story is a story about frictions, what happens when the partners involved, by negotiating, cannot agree upon a web site that is 'enough of the same' for everybody. Bowker and Star use the concept of boundary object and write: "boundary objects are objects that both inhabit several communities of practice and satisfy the informational requirements of each of them. " [7] The shared common agreement could support the further decision making and web development in the everyday practices. John explicitly says that: "They...have a picture. We working in the reality have another picture. Those pictures have never met."

The following negotiating partners are involved in John's talk: the structure and the content of the web: "For example, what will we have for menus and who is allowed to be there and to be visible...There was a fundamental shortcoming in the structure from the beginning. Namely, that we had used the administrative structure of the municipality as the starting point [on the website]...There were many roundabouts. The structure was re-designed. There was an internal dissatisfaction: 'People don't find me....and so on and so on.... Never ending discussions."

Another negotiating partner is the visionary ideas of the Internet understood as a place for democratic dialogue and an all day open service provider: "We don't have any money to develop the 24hours authority [= the official Swedish term for providing electronic public services for citizens], to provide interactive services, such as queuing for the child care place. ..The Place for Democracy...we don't have any money to do something..."

The third negotiating partner is technology, both presented by the software companies and the software. Citing John: "We had to find a tool that supported our thoughts [of a decentralised version of updating the web site]. There wasn't anything that was ready....And then we found a local company who had an embryo. It was far away from the final version and it was not designed for the public sector. It was a dialogue. We were in and developed. We had requirements regarding the interface and the functions...Later on Nick [the visionary] started to consider the possibility to put the Internet and the intranet together with a publishing system. To build up one single platform. There were no tools that supported these kinds of ideas. Then we again found a company that had an embryo. They [=the company] painted pictures, but it wasn't ready. But it supported our idea of functionality and the way of working. .. It was cool. It was what we were looking for....But they couldn't deliver. There was no functionality."

Time
Time is an issue in John's talk. On one hand he refers to the municipal idea of being many steps ahead others, but he states quite sarcastic that "instead of being years before others we actually are many years after." Here his time line contradicts the visionary words of being out first and being best as identified and recognised in the vision document.

John is very occupied by action plans, delivery times, and deadlines in general. This is of course part of the time ideology connected to information technology. But where the official information technology time is rapid, fast and non-problematic, in John's talk time becomes an obstacle, a friction, a huge problem, which he and his fellow workers have to work with and fight against. There is also the time before, the period of ideas and realization, and the time afterwards, when things do not work as they were planned and when the criticism starts to get articulated.

Keylines
John is one of the persons at the grass root level whose task is to translate the IT-visions to reality and functional services. What John's talk indicates is that the translation work is not only to adopt the computer based tools and installing hardware and software. The core in his talk is about various kinds of 'meetings': the old organisation and routines try to meet new ways of working and to transgress the existing organisational borders. People meet software. The employees meet politicians. Everyday meets visions.

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And so on. John´s talk leads us back to the description in the government bill saying that: "It is important to understand that IT and information society is not only an integration of computers, media technology and telecommunication systems in a narrow technical sense, but also a sociotechnical system where the different forms of ownership, organisation and the regulative system in a high degree determines the development. " (GB, p. 14) and where John would add ´human relations, negotiations, contradictions, friction...´

Discussion

It seems that the arena C is stable in the meaning that the space for negotiations is closed. There is at least one reasonable explanation to this. At the moment when a discourse reaches the stage of articulation and publication, as in my example the government bill, it is getting closed and the period of negotiations is over. The government bill is both a product of the dominating IT-discourse in Sweden and it keeps on re-producing and strengthening it. One clear indication of the strength of the dominating discourse is that it is not only produced and re-produced at the national level, but as explicitly and synonymously at the municipal level, as in my case study.

When we move to the grass root level, the arena A, the ingredients of the story are changing. The processes and practices are getting messy, heterogeneous, and thereby complex. If the arenas B and C could be described as stable so it is instability that describes the story told by John, the local web developer. In the everyday work both of stability and instability co-exist. The web site of the municipality gets done and is being updated. Beyond this functioning stabile layer there are a lot of actors and their mutual on going negotiations making the stability shaky and vulnerable. [8]

This is exactly what the web production in this municipal organisation is all about. How to reach the stability when there are so many unstable elements involved? Many of the elements that John has identified are for the official web process more or less invisible, because they are not considered as the core account of the local information technology activities and processes. The elements of time, soft ware, politics are only ´present by being absent.´

What is obvious after reading the texts and interviewing John, is that designing information technology (in my case dressed as web production) is much more than designing the web site. The heterogeneous actors design not only the the municipal society during their implicit and explicit negotiations, but they also design the society, the municipality, the organisational relations, boundaries between the public and private sector, the relations between the citizens and the administrations, and their work. This perhaps helps us to understand the complexity of the everyday life of information technology, but a question still remains. How to bring the different elements more explicitly to design processes? Or is there a risk that we will get lost in a jungle of too many actors, negotiations and networks and thereby loosing the focus of the participatory design?

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