Constructing decision support systems for enrolling citizens to pension reform

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Abstract
The present study claims that Decision Support Systems (DSS) feature in attempts to influence citizens to behave in line with pension reform. The study looks at two key aspects of this: (1) What objectives concerning anticipated behaviour are public and other actors trying to inscribe into technology during the process of enrolling citizens to pension reform? (2) How does technology in general, and the DSS in particular, feature as a part of this process? The study concludes that the objectives that leading actors try to inscribe into technology have changed during the course of the process. First the focus was on accomplishing an active choice of citizens, subsequently changing to an informed choice. Later on, this changed to an intention to avoid systematically poor outcomes. Technology as such has gradually developed from providing information and facilities for changing funds online into offering an advanced DSS for financial transactions.

Keywords: Transactions, decision support systems, policy implementation, pension reform

1 Introduction
This paper proposes that that the Internet is not only used by public agencies for service delivery but is used to provide Decision Support Systems (DSS) in attempts to influence citizens in line with pension reform. Many countries in the industrialised world suffer from an ageing population where the number of retired people per employee is rising. Policymakers in those countries are often involved in plans to reform their current pension systems (Normann and Mitchell 2000). As a consequence of this, the pension systems are subject of much debate, resulting in an animated discourse or in actual reforms designed to change the pension systems to meet the demands of this new situation. The exact content of these reforms might differ among countries, but a prominent objective is to increase the connections between received benefits, economic growth, and the individual’s activities in the labour market (Wadensjö 2005). A further element in the reforms in some countries is the introduction of premium pension schemes (Normann and Mitchell 2000; Sundén 2004). Often premium pension schemes involve complex decisions that need to be handled by citizens both in a short and a long-term perspective. Sweden is similar to many other countries concerning their endeavour to introduce pension reform but it is unique in its use of computerized decision support provided through the Internet and in the degree of individual choice offered (Normann and Mitchell 2000; SOU 2005). In this paper, current experiences from Sweden are used in an analysis of how DSS appear as an element in pension reform.

It is interesting to note that pension reform pertains to a type of public policy implementation that to a considerable degree includes intentions to influence the individual citizen and his or her activities in the labour market (work) as well as the capital market (premium pension funds). More importantly, in the particular case of pension reform in Sweden, DSS provided through the Internet is an important part of public policy implementation (Premiepensionsmyndigheten 2005b; SOU 2005).

There is a growing body of research into how the Internet is used for public service delivery. Apart from analysing the provision of different types of services (Shackleton et al. 2005), the
‘one-stop’ concept for service delivery offering an infrastructure for transactions (Tambouris and Spanos 2002; Wimmer 2002), case studies of one-stop service delivery (Bannister and Walsh 2002) and frameworks for evaluations (Layne and Lee 2001) are recurrent issues.

With this as a background, the present study illustrates that the Internet in general, and DSS in particular, are used in attempts to enrol (Callon 1986) or connect citizens to pension reform. The study is informed by the theoretical framework of Actor-Network Theory (ANT) (Akrich 1992; Callon 1986; Latour 1991). This framework invites us to discuss technologies as something one group of human actors might use to try to influence other actors to perform according to their views of relevant anticipated behaviour that are built into the technology (“inscriptions.”) Also, the processes during which different groups of actors work out these inscriptions and try to get other groups of actors to support them is also of interest. At a general level, common objectives of pension reform are, for example, to influence the individual’s activities in the labour market as well as his or her retirement plans (Normann and Mitchell 2000; Wadensjö 2005); but other more specific views of anticipated behaviour in connection with the premium pension scheme might exist.

The present study looks at two key aspects of this. (1) What objectives concerning anticipated behaviour are public and other actors trying to inscribe into technology during the process of enrolling citizens to pension reform? (2) How does technology in general, and DSS in particular, feature as a part of this process? However, the purpose is not to make a detailed account of the success of this endeavour in terms of the degree to which citizen behaviour is successfully influenced. Instead, this study is dedicated to the limited but still important objective of offering a broad and introductory picture of how DSS are used by public authorities in attempts to enrol citizens to pension reform. More specifically, the DSS might be a part of attempts to influence different actors to behave in line with certain objectives (Callon 1986) transcending the more limited perspective on transactions in the research field of e-government (Tambouris and Spanos 2002; Wimmer 2002 and others).

This paper is organized as follows. First, there is a section on international experiences that aims to expand the framing of these issues. After that, the theoretical framework of ANT is expanded on during which concepts like concepts of enrolment and inscriptions are explained. Thereafter, there is a section on method. Then the analysis section describes how actors try to inscribe anticipated behaviour into DSS as a means of enrolling citizens to pension reform.

2 Pension reform today

2.1 International experiences

Pension reform is on the agenda in many countries. A recent example is that in 1999 Denmark introduced a reform involving a premium pension scheme with a supporting Internet Web portal http://folkeborsen.tv2.dk. This portal has a limited outreach in practice since the savings in the premium pension scheme were postponed during 2004-2005 and very few Danish people took the opportunity to pursue an active choice of premium pension funds. The UK and the US both have different combinations of public and private pensions, sometimes in the form of occupational schemes (SOU 2005). Interestingly, in the US state civil servants benefit from a premium pension scheme (Thrift Savings Plan) with a personal choice but with a limited spectrum of portfolios to choose from (Premiepensionsmyndigheten 2006b). In the UK the Financial Service Authority expresses certain ambitions to educate people about pensions in general and about fees and other relevant facts associated with the different options available (SOU 2005). Lately, a system with a limited number of options for choice has been suggested as a part of a new pension system in the UK (Premiepensionsmyndigheten 2006b). Pension reform in France in 2003 included more options for choice, but there are also plans for a more advanced use of websites for pension information and administration.
In Switzerland information technology (IT) is used within a decentralized administration of pensions, but there are a few attempts to introduce websites for informing citizens about their personal contribution account, or making provisional calculations of retirement pension (Mänz and Trechsel 2004). Also in Argentina, Chile, Mexico and Poland pension reforms have involved individual accounts and options for choice (SOU 2005). This means that not a few countries are striving to reform their pension system, often by introducing individual options for choice. Sometimes such information is said to frighten people, but information about the details of the pension system can also increase support for reform (Boeri 2004; Hedborg 1998), and is thus of strategic interest to policymakers.

2.2 Pension reform in Sweden

During the 1990s there was also a lively discussion about the need for pension reform in Sweden. A decision in 1998 introduced the new system that included, among other things, a premium pension scheme. In 2000, a first round of choice of premium pension funds was introduced as a part of the premium pension scheme supported by the website www.ppm.nu (Sundén 2004; SOU 2005). The pension system is public and mandatory, i.e. the entire workforce is included in the schemes (Engström and Westberg 2003). The activities in this respect have attracted international attention (Normann and Mitchell 2000; Fagerström 2005).

In an attempt to make the system financially viable it was built on defined contributions rather than defined benefits. The system has two parts: one pay-as-you go scheme and one premium pension scheme, both based on individual accounts. An obligatory fee is charged on all earnings, of which 16 per cent goes to the pay-as-you go scheme and 2.5 per cent goes to the premium pension scheme (SOU 2005). Most adults have a supplementary pension from an occupational scheme (Wadensjö 2005). An important aspect of the pension system is that all incomes earned during an individual’s life will affect the received benefits in the pension scheme (SOU 2005). A further important feature is a premium pension scheme offering individuals a choice between hundreds of funds. For those who make no active choices there is a ‘default fund’ administered by the state. Last but not least, in 1999 a new government agency, the Premium Pension Agency (PPM), was founded. Its main fields of activities were to provide information about pension issues in general, the premium pension part of the new system, as well as to act as a clearinghouse (Sundén 2004).

3 Previous studies

To a reader interested in DSS it comes as no surprise that such systems for financial decisions is a well-established phenomenon. In 1999, Palma-dos-Reis and Zahedi discussed the design of a personalized intelligent financial DSS aimed at broad groups of people and how this could reflect individual qualities like for example attitudes towards risk. Similar examples are Moynihan et al. (2002) proposing a DSS for asset and liability management in financial institutions och Dong et al. (2004) suggesting an integrated framework for selecting efficient portfolios for investment that can be provided through the Internet. The most recent example is a DSS that to some extent makes the decision itself and in this way overpasses the human decision-maker (Blue et al. 2006).

A broad examination of the journal Decision Support Systems between January 2002 and May 2006 shows that normally a DSS is directed towards private as opposed to public sector organisations. Very few of the DSS in the public sector are, in turn, aimed at citizens as users. In an article containing an overview of the past, present and future of DSS (Shim et al. 2002) the case of public sector providing DSS to citizens was not even mentioned. Walczak et al. 2002 discussed the use of DSS for professionals in the public sector allocating hospital bed resources and determining required acuity of care. A further example is Berndt et al. (2003) discussing DSS for desicion-making in community health planning.
An exception is Johnson (2005) discussing a DSS aimed at citizens for guidance in social housing programs in the US. This DSS provides users with information on housing search strategies and real-time access to data on neighbourhood characteristics. The user is also supported to select neighbourhoods with characteristics consistent with their preferences and to rank the according to particular attributes. A similar example not originating from this journal is the type of DSS that is used in educational and careers guidance (Watts 2002). Since the late 1990s decision support has been provided through the Internet in many countries based on different models of decision-making concerning educational and careers issues. Many times these forms of support are heavily related to public policies of promoting life-long learning. Thus, the present study offers experiences of a new type of DSS aimed at citizens that is a part of public policy implementation. What theoretical lens can enhance our understanding of how different actors try to use a DSS to influence citizens behaviour in pension reform?

4 Theory

The theoretical approach of this study is informed by ANT in general, and the concepts of problematisation, interessement, enrolment (Callon 1986) and inscription (Akrich 1992; Akrich and Latour 1992) in particular. ANT is a complex and continually developing theory emerging through seminal texts and authors such as Callon (1986), Akrich (1992), and Latour (1987). More recent contributions are for example Callon (1998), Law and Hassard (1999) as well as Czarniawska and Hernes (2005). This paper does not intend to contribute to the general theoretical development of ANT, but rather to benefit from it by applying certain concepts to a process in a field of praxis (the role of technologies in pension reform). This approach serves as a basis for analysing how a DSS is used by one type of human actors (designers) in attempts to enrol or connect another type of actor (citizens) to pension reform. Consequently, the present study deals with issues of public policy implementation by means of IT. ANT is especially relevant theory since it ‘takes technology seriously,’ it is argued here, and gives due attention to nuances in the design and anticipated use of technological devices. It emphasizes how human actors use technology to enrol other human actors to elicit certain behaviour or actions. Thus, in this framework there is a networking dimension that includes humans and technology, as well as a performative dimension.

The classic ANT study of the scallops, fishermen and the ecological researchers in Brieuc Bay explores the concept of enrolment in a simple but telling way (Callon 1986). The study describes how one type of actor (the researchers) tries to enrol another type of actor (the scallops) to their own objectives; i.e. to get the scallops to act in a manner consistent with the activities designed by the researchers for growing scallops, and as a part of this, for the scallops to stay put on a rope used for these activities. The rope as such serves as an enrolment device employed in this attempt (Callon 1986).

Problematisation is the first phase of this process where certain actors position themselves as indispensable resources in the solution of the problem they have identified. Other central actors roles are also defined. Thus, the initiators identify an obligatory passage point (Callon 1986) for general problem solution in the process.

Interessement is the next phase during which the initiators try to convince other actors that the previously defined ideas are in line with their own interests. During this phase the initiators are also trying to align new actors to the process. ‘Interessement is the group of actions by which an entity attempts to impose and stabilize the identity of other actors […]. Different devices are used to implement these actions’ (Callon 1986, pp. 207-208). More specifically, the devices might be different types of artefacts such as ropes, keys etc but also IT.
The next phase is enrolment: Latour (1987) and Callon (1986) suggest that enrolment is accomplished by getting another actor to follow or act in accordance with your own intentions. However, in this particular case referred by Callon (1986) the scallops refused to act in the proposed manner or to behave according to the objectives of the researchers. This means that the attempt to enrol the scallops to the aspired objectives failed. In conclusion, ‘Interessement achieves enrolment if it is successful. To describe enrolment is thus to describe the group of multilateral negotiations, trials of strength and tricks that accompany the interessements and enable them to succeed’ (Callon 1986, p. 211).

It is argued here that IT such as the Internet in general and DSS in particular are especially interesting devices for enrolling actors. As non-human artefacts, they can be used as delegates for particular interests, as well as stand-ins and speakers for human actors (Bloomfield et al. 1997; Holmström and Robey 2005) such as the civil servants and policymakers that formulate the objectives to affect the behaviour of citizens in pension reform. In other words, technology is used by human actors to embody inscriptions or ideas of anticipated behaviour of other actors (Akrich 1992; Akrich and Latour 1992). In the case discussed here, it is of interest to follow up on the successive negotiations about inscriptions of anticipated behaviour of citizens in pension reform communicated by actors in the process when talking about the technology. At some stage, the inscriptions might become stable and routine, whereas in the process discussed here they are very much a target of discussion.

A more specific current example of this perspective is Holmström and Robey’s (2005) longitudinal study into the organizational consequences of an on-line analytic processing tool in a municipal environment. Their study focused on the successive enrolment of diverse groups of actors within the organisation to the implementation process as well as to modifications of their perceptions of the technology. Another example is the Norén and Ranerup (2005) study of how two national public agencies in Sweden used the Internet to enrol citizens to public objectives in education. Their focus was on the technological devices used whereas the emerging objectives and associated anticipated behaviour from the side of citizens were investigated at a more general level. In contrast to these studies, the intention here is to account for the objectives concerning anticipated behaviour public and other actors are trying to inscribe into technology during these processes to connect citizens to pension reform through computerized decision support as well as the more specific features of technology in this. This particular approach was chosen in order to make a contribution to the research field of e-government that, ideally at least, combines insights into public policy and technological matters (Bellamy and Taylor 1998; Grönlund 2002). In this particular case, the transactional paradigm is transcended through the use of the concept of enrolment in ANT. The approach also provides knowledge about the special case of DSS in public policy implementation that is sparsely represented in research.

5 Research methodology

This paper presents a single case study of an innovative and to some extent paradigmatic character (Flyvbjerg 1991). The Swedish case is unique concerning the degree to which the Internet in general and a DSS in particular are used by public authorities. The Premium Pension Authority with its website www.ppm.nu is comparatively new and the agency put great emphasis on the use of the Internet as a means of communication with citizens.

When conducting a study based on ANT, the researchers must carefully choose a group of actors to follow (Callon 1986). In this piece of research, we have decided to follow actors in the agencies that have deep knowledge about the design of the website and its devices. These actors also have a general insight into the process of pension reform. This means that this paper rely on six interviews with civil servants, all of whom worked with the design and
project management of the [www.ppm.nu](http://www.ppm.nu). Three of these interviews were conducted in the spring of 2005; three in the autumn of 2006. The interviews lasted between 60-180 minutes and were recorded on tape and subsequently transcribed. The aim of the interviews was to get general knowledge about the history of the website of PPM and its DSS. Another issue was to collect information about the current and planned intentions with the decision support. Asking the interviewees about the intentions of all available technological devices used with their website was an important part of the investigation method. In so doing, the intent was to capture as closely as possible the views and accounts put forward by the actors themselves (Latour 1991).

A second public authority is involved in the administration of pensions: the Social Insurance Board. It has a longer history than PPM, but their strategy regarding the use of the Internet towards citizens is similar. Their website, [www.forsakringskassan.se](http://www.forsakringskassan.se), contains some facilities to support prospective pensioners but is excluded from the present study since it mostly deals with applications for retirement. However, in the autumn of 2005 two of its civil servants working with project management were interviewed with a focus on their involvement in national activities of using technology in pension reform. Lastly, a civil servant working with a public-private partnership with the aim to inform about pension issues (Min Pension i Sverige AB) was interviewed as an informant in the field.

Further, different types of documents were also used. A first type of documents was project documentation produced by the PPM in association with its website and its computerized decision support. A second type consists of official policy reports in pension reform. A prominent role here was played by the official report *Difficult waters? Premium pension savings on course* (SOU 2005). A third type of documents was reactions of public and private agencies to this official report appearing in pension reform. In this manner, the official views in association with technology in pension reform emanating from a broad spectrum of actors in society were captured. A final type of data was collected by a detailed analysis of the devices of the [www.ppm.nu](http://www.ppm.nu) with a specific focus on the DSS. In sum, the aim was to construct an account of important activities and inscriptions that were highlighted during the course of the investigation process. Equally important, the analysis of the technology was pursued by searching for functionalities or devices that are directly related to the different inscriptions of anticipated behaviour as encountered in the interviews and documents.

6 **Tracing the Actor-Network**

6.1 **Problematization**

We will start by an analysis of how certain actors position themselves as indispensable in the solution of the problem they have identified and establish the role of other actors. During these first years of the new pension system the objective of an *active choice of premium pension funds* was promoted in official government policies (Finansdepartementet 1999; SOU 2005) as well as in information campaigns (Sundén 2004). The new government agency had been given assignments to provide information about the new pension system and especially its premium pension part as well as to administer the premium pension funds. The other public agency dealing with pension issues, the Social Insurance Board, had its main focus on the pension system at large as well as on retirement issues (Ranerup *forthcoming*). Thus, the new public agency PPM took position as the leading actor in the area of premium pensions working to accomplish the official objective of an active choice of funds from the side of citizens. This, in turn, meant that the citizens were aligned to the original set of actors in the process.

PPM’s website [www.ppm.nu](http://www.ppm.nu) was launched during the first year of the new pension system (1999). The Internet was perceived as important by the new agency, meaning that the main
means of contact with citizens should be in line with the 24/7 ideal for self-service (Premiepensionsmyndigheten 2005b). An interviewee in the form of a designer at the PPM characterized the role of the Internet for this agency as follows:

Since PPM is a new authority, there was an intention that as much as possible, the interactions with the clients should be pursued by facilities for self-service. Therefore, the basic strategy has been to try to steer people into using the website.

Therefore, from the upstart of this new agency in 1999 the Internet was added to the original network of actors that PPM aligned to the process. At that point in time (1999-2000) www.ppm.nu contained no devices for pursuing the choice of premium pension funds. Instead, the choice of funds was pursued by a telephone helpline or by standardized paper forms (Premiepensionsmyndigheten 2005b).

However, since 2001 the website of PPM contains a first section of devices that provides information about the pension system in general and the premium pension scheme in particular. In order to adapt to individual needs and to increase usage, there is always superficial information as well as one or two levels of more detailed and specific information. A standardized example of future pension benefits is also available. There is information that describes how all incomes earned during the individual’s life affect future pension benefits from the public pension scheme and the occupational scheme, as well as a link to the related website www.minpension.se offering information about benefits in the occupational schemes. A second section contains a FAQ with a focus on premium pension funds. A third section contains information about the premium pension fund choices that are available. The user is able to search among the different types of funds and make a selection of up to five funds that can be compared in terms of the historic return on investment. There is also general as well as special information about different types of funds, the risks with different types of funds, the fees charged and information about fund companies etc. A fourth section is protected by an individual password. Here, the user can find information about his or her holdings and their value. Also, it is possible to go to the third section and use the facilities for comparing funds and then transferring the result to change the composition of one’s portfolio. In sum, the PPM had established itself as an obligatory passage point (Callon 1986) in premium pension reform making the Internet into an important actor in the network. The main intention at this point in time was to accomplish an active choice of funds from the side of citizens among the 450 funds that were available.

6.2 Interessement

We will continue by an analysis of the strategies by which initiating actors try to convince other actors as well as to enrol new actors to the their definition of the problem and its solutions. Early in the process (in 1999), the project plans of the PPM included the issue of how to support the choice of premium pension funds in a more elaborated way (PPM 1999). At that time, the actual devices for this were static information about funds and their qualities (see above). At the same time the number of premium pension funds was steadily increasing. This happened at the same time as those among the citizens who were active choosers were decreasing: 66% (2.9 million) of the 4.4 million individuals included in the system in Sweden made an active choice in 2000, 17.6 percent in 2001, and 14.1 per cent in 2002 (PPM:Premium pension statistics www.ppm.nu 2004). In 2002-2003 designers at the PPM started to discuss the idea of how an interactive DSS helping citizens in their choice of premium pension funds might be structured. This meant that that not only the Internet in general, but the idea of a DSS provided through the Internet in particular, were aligned to the process by the initiating actors at the PPM.
Further, leading civil servants at the PPM emphasized the fact that according to investigations made by the PPM and others citizens ask for further guidance in the choice of premium pension funds (Premiepensionsmyndigheten 2005a). At the same time, beginning in 2001, the PPM was given a new objective of promoting activities and guidance in line with the ideal of an informed choice from the side of citizens (Finansdepartementet 2000). In 2004 this also included the objective that citizens should be able to follow up on the return on investment of their portfolio (Finansdepartementet 2003).

The difficulties related to the choice of premium pension funds were also part of public discourse. In May 2003, the leading newspaper in Sweden published an article in which the difficulties associated with the complexity of choosing between a large number of options was stated (Barr et al. 2003). Also, it was argued that many people might get a systematically poor outcome because they include premium pension funds with high levels of risk in their portfolio. Alternatively, in case they are passive non-choosers their assets are placed in the ‘default fund.’ The writers were, among others, a former Minister for Finance and leading civil servants in large premium pension funds that is run with a stronger influence of public agencies concerning its administration rather than private interests (“Seventh Swedish National Pension Fund”, “the National Debt Office.”) One of these authors was somewhat later appointed as the chairman of the board of PPM and another as chief economist. This article, and the issues it brought up, attracted great attention in the public debate (Barr 2006).

In 2004 the new premium pension system had been up and running for a few years. Those among the citizens who were active chooser had further decreased to 8,4 per cent in 2003 and to 9,4 per cent in 2004 (PPM:Premium pension statistics www.ppm.nu). During the spring of 2004 the government, through its Department of Finance, initiated a thorough evaluation of the premium pension system in form of an official report to be published in November 2005. The main issues that should be treated were, among others, how the costs associated with the premium pension schemes might be reduced, how the complexity of choice could be reduced and how a DSS could serve as a means to reach this goal. An important issue was also to accomplish the objective that the citizens did not to get a systematically poor outcome (Finansdepartementet 2004). A responsible investigator (a professor of Finance) was appointed, as well as a group of associated experts from public and private agencies with an interest in premium pension issues. In a Swedish context this type of public assignment is important since its result, and societies reactions to its result, is an input in the work to renew the legal framework.

Meanwhile, the PPM continued its work with a DSS to support the choice of funds. In May 2005 a simple kind of computerized support for the choice of premium pension funds was introduced containing seven ‘type portfolios’ with different risk levels mirroring various attitudes towards risk with limited interactive facilities. An important precondition for this work was that a DSS might only suggest which types of funds to include without recommending individual funds (Wikstedt and Rudefors 2005). Thus, a more advanced but still functionally primitive DSS had de facto been enrolled to the process.

The need for a more advanced DSS was recognised in several official reports (Finansdepartementet 2004; DS 2004). Further, the official report on pension issues, Difficult waters? Premium pension savings on course (SOU 2005), was launched in November 2005. It emphasized the complexity of the pension system and the difficulty in improving the level of knowledge about choice among the general public. At the same time, it stressed the importance of improving the quality of choice and forcefully argued that PPM should expand its attempts to provide support for the choice of funds through a DSS. The report elaborated the idea that the complexity of choice should be reduced among other things by fees charged to those private agencies that wanted to be a part of the system. This meant that the official
The positions taken in this type of official reports are very often such that already are held by other actors. Then these reports also make a few suggestions of a more controversial character. The DSS is an example of the former kind. It [the complexity of choice and the need for a DSS] is very obviously something that we have defined ourselves at the PPM.

A representative from the PPM was part of the professional advisors that were appointed to complement the responsible investigator. A pronouncement on the official report SOU (2005), written in collaboration with another appointed expert pertaining to the Social Insurance Board, expressed a strong support for the general line of argument in the report. At the same time it expressed a critique against the conclusion that the proposed solutions would be sufficient to accomplish an informed choice of funds and good outcomes from the side of citizens. In so doing, PPM strongly argued for the alternative line of change meaning that the complexity of choice would be limited by a more significant reduction in the number of funds allowed into the system as well as by the introduction of a few alternatives in which public agencies had a significant influence on portfolio composition (SOU 2005).

In January 2006 the new DSS the Pilot (Lotsen) was launched by banner campaigns on the main page of the website of PPM, offering direct access to this new facility. It consists of a routine beginning with questions about peoples’ general willingness to engage in pension matters. If the user is unwilling to engage, he or she is led to two specific alternatives, one leading to a fund composed according to your age, the other leading to the ‘default fund.’ There is as an alternative for those who want to be active without any help from the computerized decision support facility. The Pilot itself starts with questions about the individual’s attitude towards risks in investments, as well as age and level of income. From the answers to these questions recommendations are provided about how a portfolio with different types of funds should be put together. Thereafter, it is up to the individual to make an actual choice of funds between the alternatives available.

During the spring of 2006 many societal institutions submitted reactions to the official report SOU (2005). All in all, 35 public and private agencies took part in this procedure. The vast majority of private and public actors expressed a positive attitude towards introducing a DSS that they thought would be of help in the choice of premium pension funds. Among those were trade unions for blue-collar as well as white-collar workers and associations for senior citizens etc. Other actors expressed a positive attitude towards this but emphasized that a DSS must be further developed in order to produce a result based on a more advance model. Still, it must be neutral in the sense that it does not work in the direction of making the PPM a stronger agent in the selection and administration of funds they argued. Among those were for example National Association of Shareholders, National Association of Financing Companies and the National Association of Insurance Companies, the Stockholm Chamber of Commerce etc. On the other hand, the PPM itself expressed an opinion in line with its expert pronouncement on the official report SOU (2005) supporting the official report regarding its major conclusions including the DSS (PPM 2006b). However, as earlier on they requested
that the alternative line of change should be further investigated, meaning that the complexity of choice should be limited by the introduction of a few simple alternatives.

6.3 Enrolment

We will now look into whether the PPM has succeeded in trying to convince the other actors to accept their proposed solution, or in other words, if enrolment has been accomplished. An investigation made during the summer of 2006 revealed that approximately 60,000 people had tried out the different facilities or steps in the Pilot. However, only approximately 5,000 have taken the opportunity to, as a part of trying out the new DSS, directly continue to step in the process where the composition of their portfolio was changed in line with the suggestion generated (Barr 2006). However, there is no way of knowing whether the citizens had tried out the DSS and saved the result, later using the whole or parts of it. Also, 95 per cent of the transactions between citizens and the PPM are pursued by means of the Internet.

In July 2006 the Department of Finance gave PPM an assignment to investigate how the complexity of choice might be reduced with different types of fees both for those among the citizens that are making frequent changes to their portfolio and for participating private fund companies. Not less important, the PPM was assigned to investigate how the complexity of choice might be reduced by the introduction of a new type of fund composed by public agencies that is active concerning premium pension issues (Finansdepartementet 2006). At the same time, National Association of Financing Companies complained about that PPM was given this assignment instead of an independent organisation. The responsible minister at that point in time answered that even though PPM was appointed it was because of their expert knowledge in the field. According to this minister, this is not to say that will be appointed to manage any new types of funds (Kennedy 2006).

During the time of writing (September 2006) the PPM is developing further amendments to the Pilot. The improved functionality has the intention to provide decision support for analysing the long-term results as regards the return on investments, fees charged by fund companies, levels of risks, as well as to introduce ‘alarm-bells’ in situation where citizens’ attention is needed to correct the composition of his/her portfolio (Premiepensionsmyndigheten 2005c;2006a). Also, the Pilot will be a part of a promotion campaign directed towards those citizens that are considered as important ‘target groups.’ Among those are the people that made an active choice in 2000 but that subsequently has remained passive.

7 Discussion

In this paper we have used ANT to analyze a process during which actors design and implement the Internet in general, and DSS in particular, in attempts to enrol citizens to pension reform. The following two questions have been asked in our enquiry: (1) What objectives concerning anticipated behaviour are public and other actors trying to inscribe into technology during the process? (2) How does technology in general, and the DSS in particular, feature as a part of this process? In these experiences the PPM as the leading actor has managed to enrol technology to the process in the form of a DSS introduced in January 2006 that is under way of being further developed. Also, other significant actors have successively been enrolled to the process and the proposed solution. This is evident from the stated aims of the official report (SOU 2005) as well as from the official reactions to it from both public and private agencies. However, at the time of writing (September 2006) the success in enrolling citizens has only been partial. This is clear since, on the one hand, comparatively few citizens use the DSS to change the content of their portfolio whereas, on the other hand, the vast majority of the transactions between citizens and the PPM are pursued through the Internet.
Further, the objectives that leading actors try to *inscribe* into technology have changed during the existence of the new pension system. First the focus was on accomplishing an active choice of citizens, subsequently changing to an informed choice. Later on, the objective was to avoid systematically poor outcomes. This can be interpreted as a reflection of the fact that experiences are gained during the course of the process and that gradually more citizens have been a part of the new system for some years rather than being first time choosers. Also, it is interesting to note that more funds have gradually been included in the system, in August 2006 extending to approximately 750 premium pension funds (Barr 2006). This increases complexity of choice rather than the opposite.

Taken together, this means that many actors have been successively enrolled to intention to support the choice of premium pension funds through a DSS. However, these actors differ as to the general definition of the problem of choice of premium pension funds and how it can be enhanced. Some actors, mainly those related to the financial sector, propose a solution to the problem by supporting the choice of funds through a DSS that only to a limited extent decrease the number of funds to choose from. To these actors, it is important that the role of public agencies in the administration and provision of funds is kept to a minimum. Other actors, mainly the PPM itself, recommend that a more limited amount of funds should be available. This would very likely also increase the role of PPM itself in the areas of administration of funds and policy implementation. Also, this suggestion is related to the principal issue of giving public agencies the authority to offer more specific guidance about choice in a market versus its role as a non-partial public national authority.

Not less important, *technology* as such has gradually developed from providing sheer information and facilities for changing funds online, into offering a DSS for financial transactions. The DSS that is now being developed by the PPM very much in line with the suggestions of the official report (SOU 2005) will contain facilities for a more fine-grained analysis of portfolios from a long-term perspective (fees, return on investments, alarm-bells etc). From the perspective of ANT, the gradually changing objectives that the leading actors try to inscribe into technology indicate a stronger and more concrete reliance on technology as a means of enrolling citizens. More particularly, the general objective of an active choice of funds was only vaguely supported by technology by the provision of general information and since 2001 also by facilities for changing funds. The objective of an informed choice was also supported by information etc. Indications that the ambition to overcome lack of knowledge *per se* is very difficult to achieve was communicated in official policies (SOU 2005). As a contrast, the ambition to avoid systematically poor outcomes is very clearly built into the implemented DSS as well as in the devices that currently are developed and introduced. This means that technology has been given a more elaborated as well as a more significant role as a material for inscriptions. In this respect, it can be said to function as a non-human delegate of human spokespersons of these intentions (Latour 1992).

In conclusion, the main contribution of this piece of research is this account of appearing public and private actors, inscriptions and technologies. The locus of controversy between involved actors has been identified as to how the reduction of complexity in choice of premium pension funds should be accomplished. Closely related to this is the future role of the PPM as a neutral public authority as opposed to a stronger actor in the premium pension market. Despite varying views in this respect technology plays an important role for the vast majority of actors. Through the use of the concept of enrolment in ANT this research transcends the perspective of transactions that currently dominates the e-government field. Instead, it shows how technology in general and DSS in particular can serve in attempts to enrol citizens to public policies in form of pension reform. As to the research field of DSS, we also find experiences of a DSS directed towards the ordinary citizen as opposed to professionals. In this paper we have followed a process where a DSS was designed and
implemented in attempts to enrol citizens to pension reform. Many things remain before, if ever, this process has stabilized and the proposed solutions are accepted among the actors involved including the citizens. There are a few open issues in this respect that are of special interest: Will it be possible to enrol a sufficient spectrum of actors to the proposed solution of decreasing complexity in the choice of premium pension funds by limiting the number of funds available to citizens? Will the Pilot and the suggested amendments to this DSS focusing on risk and fees etcetera attract more citizens as users when they are promoted to relevant groups of citizens? And, if so, will this lead to a better result when it comes to the return on investments in the premium pension scheme?

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References


