When Computers Became Dangerous: The Swedish Computer Discourse of the 1960s

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During the 1960s, Swedish society underwent a rapid and revolutionary computerisation process. Having been viewed as a harmless tool in the service of the engineering sciences during the first part of the decade, the computer became, during the second part, a symbol of the large-scale technology society and its downsides. When the controversy reached its peak in 1970, it was the threats to privacy that above all came into focus. This debate resulted in the adoption of the world's first data act in the early 1970s. This paper will study and analyse the Swedish computer discourse during the 1960s, with special focus on the establishment of the Data Act. The core issues are what factors of development and what main figures were instrumental to the changing approach to computer technology during the later part of the decade.

Keywords: computerisation, privacy, data act, interpretative flexibility, stabilisation

During the 1960s, Swedish society underwent a rapid and revolutionary computerisation process. Having been viewed as a harmless tool in the service of the engineering sciences during the first part of the decade, the computer became, during the second part, a symbol of the large-scale technology society and its downsides. When the controversy reached its peak in connection with the population and housing census of 1970, it was the threats to privacy that above all came into focus. This debate resulted in the adoption of the world's first data act in the early 1970s.

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From then on, establishing computer-based personal records would require special authorisation. At the same time, a new inspection body, the Swedish Data Inspection Board, was set up.

This paper will study and analyse the Swedish computer discourse during the 1960s, with special focus on the establishment of the Data Act. The core issues are what factors of development and what main figures were instrumental to the changing approach to computer technology during the later part of the decade. My main purpose is not primarily to analyse the law-making process itself. Instead, my research interest is centred on the actors and interests in this process, their motives and main arguments. The paper starts with an overview of Swedish computer policy of the 1950s and 1960s and the discourse about computerisation and privacy protection that preceded the establishment of the Data Act. A full examination of all computer policy initiatives in the Riksdag during the period 1960-1973 accompanied with a partial examination of the press debate about the population and housing census of 1970 is included in this background.

The research method is primarily qualitative, based on personal interviews with key actors in the development of the data act and other primary sources like minutes from commissions, as well as reports of the Government Commissions, private member bills, interpellations and parliamentary questions, governmental bills and minutes from parliamentary proceeding in various archives. These sources are supplemented and put into a broader context by secondary sources: contemporary reports and debates in news media, field surveys, controversial books, research literature etc. Purpose and questions have guided the selection of source material.

The academic research on early Swedish computer and ICT policy is limited, and is mainly composed of works from the 1970s and 1980s. Political scientist Jan Annerstedt (1969, 1970) and historian Hans De Geer (1992) have published major works on early Swedish computer policy. The computer policy from the 1960s to early 1980s has been examined by historians Mats Bäck (1982) and Kent Lindkvist (1984), while economist Hans Glimell (1989) extends his research to 1988. Computer scientist Sten Henriksson (1995) has published a shorter paper in which he outlines Swedish computer and ICT policy during the

period 1960-1994. These referred works are useful as background for my analysis, and partly also as secondary sources. One limitation in relation to my research interest is, however, that they, in general, view the processes of political change from the outside. While technological and economical factors are often put in focus, the political system and its actors appear like a black box, the content of which is never really examined or discussed. This approach tells little about what level of political conflict existed at different times. Important questions that remain to be examined are therefore: What happens "inside" the political processes? Who are the main actors in the political system, what meaning do they ascribe to the new technology and how does that meaning influence political decision making? In what way are different interests manifested? How and for what purposes are coalitions and interest groups formed? Who are propelling the change, and who are trying to hold it back? Another limitation is, of course, that the rather limited research field makes it more difficult to compare both the use of sources and different interpretations of the historical development that this paper intends to discuss.

Background

The computer is sometimes described as one of the defining technologies of our time. But what is a computer, really? As Henriksson has pointed out, computers often appear in chameleonic guises; they are incredibly plastic and can take on more or less any appearance (Henriksson 1995, 23).[1] Over the last 50 years, the understanding of what the computer is has repeatedly moved from one relatively stable state to another, often in relation to major societal changes of a political or ideological nature. Using a concept from the sociology of technology it can be claimed that the computer-technical development is framed by an extensive interpretative flexibility.[2]

In the 1950s, the computer was primarily regarded as an "electron brain" and "math machine". Its task was to make quick and exact calculations (Seipel 1999, 15). Behind the development of the first Swedish computers *BESK* and *BARK* were not least military requirements. Consequently, computer development became a concern primarily for the government and its authorities. However, concurrently

with the development of their computing abilities and memory capacity, computers crossed the threshold into the offices of government authorities and privately owned companies where they were used to render the work more efficient, compiling and sorting data in automatic records. The concept of ADP was born. As the computer engaged in an increasing number of civilian fields of application, technology development was no longer regarded as a central national concern, and the initiative moved from central government authorities to the private sector.

The 1960s has been called "the ADP decade".[3] The administrative data processing caught on in earnest both in industry and in the public sector. ADP became especially interesting when the growing public administration was to be rationalised. In addition to calculations and administrative routines, the vision was that the new technology could be used for e.g. records management, statistics, planning activities, information searches and process control (Johansson 1993, 63, 74).[4] However, the objective was not only to decrease public spending; the aim was also, as the historian Thorsten Nybom puts it, "to rationalise and to render the work more effective, thereby allowing scope for the increasingly demanding social and political reform policies" (Nybom 1980, 155; author's translation).

Combined with the vision of the "automated office", the rationalisation argument became the strongest driving force of computerisation. Technical and social engineering seemed to walk hand in hand and it was the tax administration and the social sector that paved the way for the computerisation of public Sweden. The management of the social security system development, which began in the mid 1950s, brought with it a great need for administrative means.[5]

From the record years of the mid 1960s the rationalisation process accelerated and in the later part of the decade a series of large computerisation projects were embarked upon. It was primarily within government authorities that large computer systems developed and personal records were "put on computer".[6] The public sector's active role as a user and the rapid pace of development of large computer systems made Sweden, by international comparison, an "early adaptor" (Johansson, 1993, 75 and Glimell 1989, 11). Not only did the 1950s and 1960s bring about rationalisation of state institution activities, Statistics Swe-

den's records of the total population (RTB) soon found its equivalent in the private sphere in the shape of various commercial records for direct advertising etc.[7] In the spirit of the so-called rationalisation movement, even trade and industry invested heavily in rendering their activities more effective; aiming for maximum control of production focus, size and quality, computer technology came to play a very important part (Johansson 1993, 76 and Nybom 1980, 150).

From Harmony to Conflict

To sum up, the computer policies of the early 1960s were marked by two characteristics. First, the interpretative flexibility was extended and technology was ascribed a new meaning. From having been viewed as large calculators primarily used for defence and technical research purposes in government institutions, computers were now regarded as office machines that could be purchased from private suppliers. The second characteristic was the neutral and non-ideological nature of computer policies. Computerisation was viewed as a rational and positive force in societal development, and political control or regulation was viewed as unnecessary. However, these harmonious views would come to change fundamentally over the course of a few years, resulting in an increasing degree of politicisation.[8]

Bäck has shown that the Riksdag already in the middle of the 1960s began to take an active interest in computer issues and that attempts at formulating an overall view of the role of computer technology in society were made at the end of the decade (Bäck 1982, 170 f). My own analysis of data political initiatives in the Riksdag during the period 1960-1973 also shows a palpable increase in activity from 1968 and onwards.

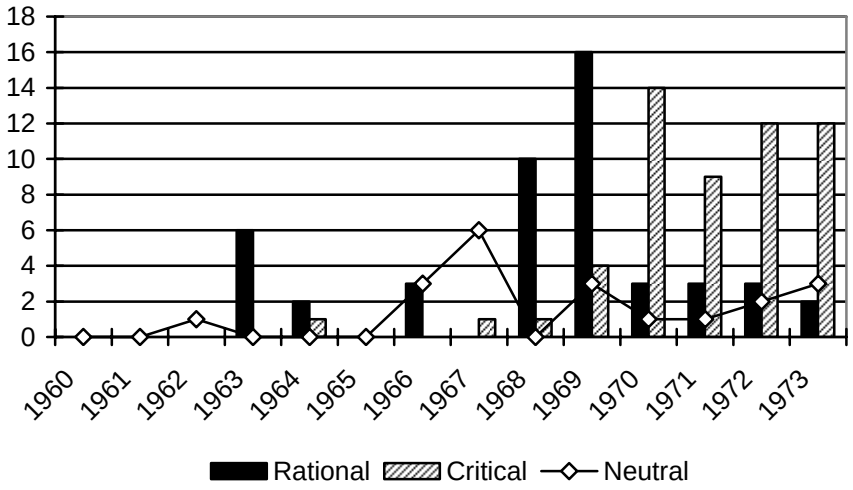

Figure 1. The data policy "thermometer": number of data policy initiatives in the Riksdag 1960-1973. Source: Parliamentary Publications 1960-1973.

"Initiative" here refers to private member bills, interpellations and parliamentary questions. Rational initiatives include initiatives emphasising computer technology as a favourable and straightforward factor of change or something that demands greater resources, a faster pace of development etc. Critical initiatives focus on the problems or risks of technology, and want to limit or postpone its development etc. Neutral initiatives have no clear position on the impact of computer technology in terms of rational/critical. The study is based on searches in the subject index of riksdagstrycket (Parliamentary Publications). The searches were made on derivatives of the Swedish terms for ADP, automatic data processing, administrative data processing, data, computer, IT, information technology, privacy, math machine and personal data. Only political initiatives that require or propose some form of concrete action in the computer field have been included in the study.

As many member bills lack direct requests, an assessment had to be made in doubtful cases as to the intentions of the introducer. This figure should therefore be read as an approximate indication of the development trend rather than an absolute measure of the data policy volume

and nature. It is worth noticing how rapidly the number of data political initiatives increased from the mid 1960s, as well as the very abrupt change in attitude towards computer technology between 1969 and 1970, when an increasing number of the political initiatives started to question the use of computer technology. It should be pointed out that identical member bills were often introduced in both the First and the Second Chamber of the Riksdag in the time of the Swedish bicameral parliament system. The decrease in the number of data political initiatives following the introduction of the unicameral parliament in 1971 is therefore partly illusory. It is, however, difficult to specify this potential error in qualitative terms.

The Privacy Debate

What was to develop into a consolidated government data policy began with the principles for, and the coordination of, the government sector's own computer use which over time had reached a purchase value of more than 300 million SEK a year (Bäck 1982, 170 f). But the issue that more than anything else came to engage parliament concerned the threats to privacy. At the end of the 1960s, the interpretative flexibility again came to expand and computer technology was ascribed a new meaning. The change resulted in growing questioning of the societal effects of computerisation. It was above all the increasing use of personal records and personal code numbers in addition to statistical surveys and direct advertising that contributed to the view that the computer was in danger of becoming an instrument for citizen surveillance. The expanding computer usage therefore came to be viewed as an invasion of privacy.

A dark satire on the emerging computer society was published already in 1966. The book was called *Sagan om den stora datamaskinen* (*The Great Computer: A Vision*) and the author called himself "Olof Johannesson". Hidden behind this pseudonym was Hannes Alfvén, professor of plasma physics at KTH, The Royal Institute of Technology, and later winner of the Nobel Prize in 1970. In the book, Alfvén sketched a frightening vision of the future where the computers became so efficient that they eventually took over all of society.[9] The moral of the story was of course that man should not become enslaved under large-scale and vulnerable computer systems. However, as a warning against overconfid-

ence in the redeeming abilities of computer technology, Alfvén's tale was however somewhat before its time. It would be almost another four years before the great debate on the risks of computerisation began in Sweden. Even so, when it started, the focus was not primarily on vulnerability but rather on the large data records' consequences for privacy.

FoB 1970 as the Igniting Spark

The spark that set the debate off was the population and housing census of 1970 (FoB 1970) (Kring & Wahlqvist 1989, 11; and Henriksson 1995, 17). The fierce reactions when the census forms were to be returned in October this year came as a bit of a surprise, given the fact that the questions were not all that different from the ones posed in the previous population and housing censuses of 1960 and 1965 (OSK memo 62, 1972-03-21).[10] Since much of the attention was focused on the form itself, the critique from mass media was primarily levelled against Statistics Sweden (interview with Edmund Rapaport). However, in the background, there were growing concerns about computerisation's consequences in a wider perspective. That FoB 1970 came to work as a catalyst for a more wide-spread concern is confirmed by the fact that the views that left their mark on the debate were only in part related to the population and housing census. The following arguments can be said to have dominated the contributions:[11]

- Collection of data about people, their attitudes and personal situation give the authorities far too much power. As a result, the contours of a big brother state similar to the one depicted in Orwell's *1984* appear with an absolute and omnipotent bureaucracy.
- By linking and matching personal record files, even commonplace details can be compiled into a privacy-invading comprehensive picture of individual conditions.
- The use of personal code numbers facilitates the linking and matching of computer files and turn people into anonymous numbers in the authorities' records.

- The selling of personal data by authorities, especially Statistics Sweden, to individuals and companies leads to an invasion of privacy and is therefore ethically objectionable.
- Computer-stored data give a false impression of authenticity. The information could be incomplete, old or come from unreliable sources. It is especially dangerous if data from records that are essentially incomparable are linked and matched.
- Data legislation governing how authorities, individuals and companies can use ADP should be introduced.
- Secrecy protection should be extended substantially for all kinds of personal data.
- Collection methods, especially the fact that landlords and caretakers function as collectors and thus are able to access sensitive personal data, should be changed.

To a certain extent, laws protecting privacy already existed. The Secrecy Act for instance had for a long time governed the access to sensitive data, including the results of population and housing censuses. But in the debate it was now maintained that the regulations were not sufficient in an increasingly computerised society. It was obvious that the existing legislation, for instance, had not been able to moderate the growing concerns over the risks with computer technology. It was not enough that people's right to a protected zone was respected in theory; it was felt that citizens must also be able to trust that it actually remained protected in practice. (Kring & Wahlqvist 1989, 12)

The Causes of the Privacy Debate

Why did the privacy debate become so heated in Sweden? According to Bäck, one explanation is that Sweden traditionally had an effective national registration system in which to register the citizen. This system had now, with the help of personal code numbers and computer technology, been trimmed into an even higher degree of efficiency. Another explanation would be that personal data in the public records, due to the principle of public access to official documents, were made accessible to anyone, and could, unlike in other countries, be bought and sold on a market. Yet another explanation could be the fact that Sweden

and its authorities were comparatively early in utilising computers for records management. (Bäck 1982, 101)[12]

But the debate about FoB 1970 was hardly the only swallow that made the summer. As shown in the figure below, the political interest for privacy matters had arisen long before the census took place and it developed during the second half of the 1960s, parallel to the increasing administrative use of computer technology. The population and housing census rather seems to have been the event that linked the discourses together and contributed to bringing the privacy problems of computerisation into public consciousness.

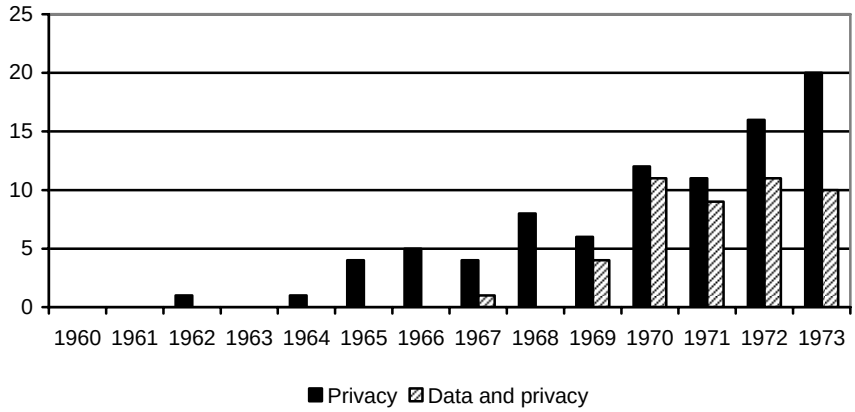

Figure 2. Number of initiatives on privacy matters in the Riksdag during the period 1960-1973. The study is based on the same material and searches as the previous figure. Source: Parliamentary Publications 1960-1973.

As before, initiatives include member bills, interpellations and parliamentary questions. It should also be pointed out that a number of the initiatives concern a specific issue that to the non-socialist parties became a recurring issue: the collective affiliation to the Social Democratic Party, which from a liberal or right-wing perspective threatened the individual's right to political freedom. As mentioned above, identical member bills were often introduced in both the First and the Second Chamber of parliament in the time of the Swedish bicameral parliament system. The real increase in the number of initiatives on privacy matters

following the introduction of the unicameral parliament in 1971 was therefore even greater than the figure seems to suggest. The category "privacy" includes initiatives that solely deal with privacy matters without any obvious relation to computers and computerisation or related technologies, while the category "data and privacy" covers initiatives that connect privacy matters with various aspects of the computerisation of society.

Naturally, the Swedish privacy debate did not take place in a vacuum, but was set in an international context. Already at the beginning of the 1960s, a discussion of the right to privacy (which in Swedish is somewhat improperly translated as "personal integrity") had begun in the USA.[13] Little by little, this debate intertwined with the consequences of the growing ADP usage. The American lawyer Alan F. Westin's pioneering work *Privacy and Freedom* from 1967 came to be of equal importance to the privacy field as Rachel Carson's *Silent Spring* to environmentalists a few years earlier (Olsson 1996, 40-46, and 2000, 17).[14] This primarily Anglo-Saxon debate also reached Sweden during the latter part of the 1960s, but did not have an immediate impact. It did, however, have an effect on the political climate and argumentation when the contention on FoB 1970 erupted.[15]

A Changed Societal Climate

Finally, the privacy debate also has to be viewed against the backdrop of the radical changes of the societal climate at the end of the 1960s. The long and harmonious growth period of the post-war era, in the words of the Norwegian political scientist Johan P. Olsen "a 'happy moment', a period when the superior objectives for the societal development were relatively clear and the means were relatively well-established", now seemed to have reached the end of the road (Olsen 1990, 135; author's translation). "Welfareism" was replaced by a growing degree of questioning of materialism, technology optimism and the entire Western life style. At the same time, economic growth had flagged and the first environmental alerts had appeared. Thereby, the confidence in the strong, protecting Swedish Welfare State began to waver and new social movements such as the leftist movement, the peace movement, women's lib

and the environmental movement claimed precedence. (Ball & Dagger 1991, 235 and Drambo 1982, 21).[16]

In other words, it was not particularly surprising that the first attacks on government authorities' (read Statistics Sweden's) growing sales of computer-stored data on citizens came from the left, both from the Swedish Communist Party, vpk, and from various left-wing groups outside parliament. The attacks were primarily aimed at the fact that the principle of public access to official documents was used in order to sell personal data that had been collected for other purposes altogether. Soon, however, liberal and conservative voices would join the choir of critics. From their point of view, statistics and the use of ADP was, if anything, seen as a means for socialists, who were unable to let things alone, to control the population in the spirit of social engineering. In safeguarding the individual citizen's right to a protected zone, right and left could thus meet momentarily.[17]

Privacy Turns into Party Policy

The privacy debate would in time begin to filter into party politics. A deeper analysis of all initiatives on privacy matters in the Riksdag during the period 1960-1973, shows that the three non-socialist parties accounted for a total of 96 initiatives, compared to 37 from the Social Democrats and the Swedish Communist Party, vpk. The debate was thus conducted primarily by the non-socialists, which is underlined by the fact that demands for legislation against collective affiliation to the Social Democratic Party was one of the regularly recurrent elements. Especially the Liberal Party came to distinguish itself as a party with privacy aspects high on the agenda together with demands for other political interventions. The second highest number of initiatives was taken by the Moderate Party. This party politicisation manifested itself primarily from 1970 and onwards, with the FoB debate as an obvious watershed.

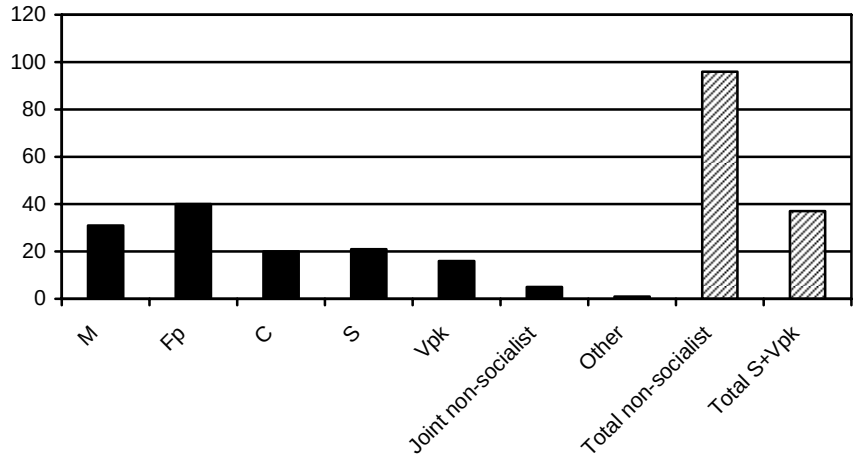

Figure 3. Total number of initiatives on privacy matters in the Riksdag 1960-1973 divided on individual parties as well as the two political blocs. The category "other" includes a number of cross-political bills with signers from one or more non-socialist parties as well as from the Social Democrats and/or vpk. The diagram is based on the same material and searches as the study of data political initiatives. Source: Parliamentary Publications 1960-1973.

However, the cross-political interest coalition would continue to manifest itself also during the 1970s. Through unusual cooperation across the party blocs in the spring of 1972, the appropriation for the establishment of a central personal record (CPR) was, for example, stopped by a parliament majority consisting of the three non-socialist parties and vpk. The moratorium was to remain in force pending the proposal for data protection legislation from the Committee on Publicity and Secrecy Legislation (OSK).[18]

FoB 1970 in Mass Media and Public Opinion

Naturally, it is difficult to reconstruct the real impact of the FoB debate, and consequently the real impact of the privacy problem, after it took place. Was there a genuine concern within the ranks of the people or

only a shallow and passing media storm? There are unfortunately no opinion polls reflecting the issue from that time. However, going through all articles related to the FoB issue that were published in the four national papers in October 1970, the relatively straightforward conclusion is that the media debate was very intense. It is nevertheless striking how unevenly the newspapers took an active part in the debate. Out of the four national newspapers *Aftonbladet* (AB), *Expressen*, *Dagens Nyheter* (DN) and *Svenska Dagbladet* (SvD), *Expressen* and SvD published the most articles by far. AB and DN did not give the debate any attention in the editorial column, while the editors of *Expressen* and SvD took a fierce stand against Statistics Sweden and in favour of extended privacy protection. Particularly notable is the fact that the two Bonnier-owned newspapers *Expressen* and DN seem to have assessed the importance of the issue rather differently, despite the fact that both of their editorial columns represented liberal values.

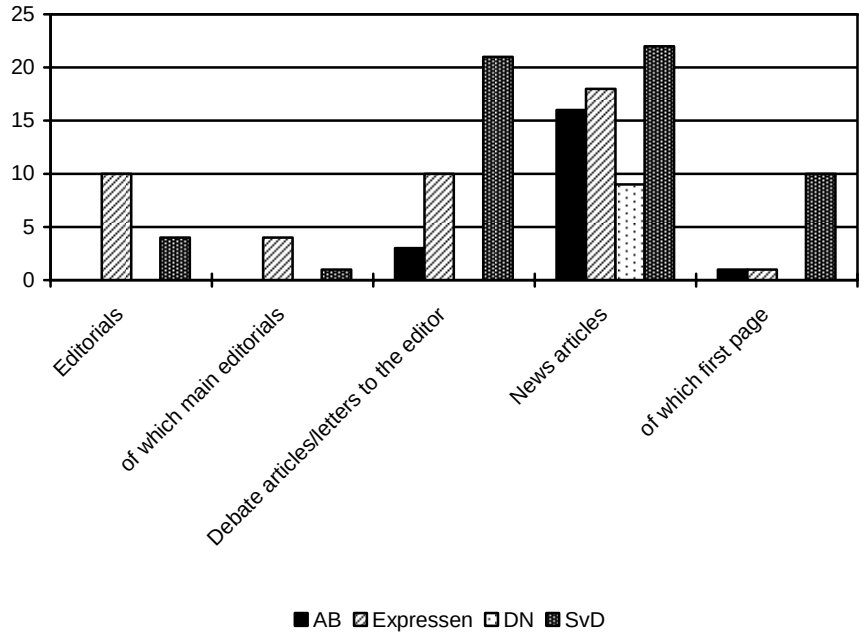

Figure 4. Number of contributions to the news media debate on FoB 1970 in national media during October 1970. The data also includes some articles

that relate to, but are not directly concerned with, the population and housing census. Source: Aftonbladet*,* Dagens Nyheter*,* Expressen *and* Svenska Dagbladet*, October 1970.*

Judging from a summary of the media debate on FoB 1970 it seems as if the assessments made by the editorial staff were not made on the basis of a common journalistic template, nor does it seem as if they were in line with the papers' party political affiliation. On the whole, this gives a somewhat dazed impression. It is, of course, risky to try to assess the public support for the privacy problem based on the debate in the mass media. However, one obvious indication on the public engagement is the vast number of matters reported to the Swedish Parliamentary Ombudsman (JO) with reference to the population and housing census. Eventually, JO had to decide on no less than 23 complaints on FoB 1970 (JO complaint 1971:836, 1, 4 ff).[19] On the other hand, it cannot be ruled out that the people handing in the complaints in turn might have been influenced by the media debate.

Late in the autumn 1970, Statistics Sweden carried out a nation-wide field survey to sound out the public's opinion on FoB 1970. The result suggested that the JO complaints were not representative for the majority of the people. A total of 71 per cent of the respondents were of the opinion that the population and housing census had been useful to Swedish society. Only 13 per cent had felt uneasiness at giving some of the details, while 86 per cent answered that it had made no difference. However, 35 per cent felt that there was a risk that the collected data would leak to unauthorised persons and 55 per cent had recently heard criticism aimed at FoB 1970. The primary source of information was the daily newspapers.[20] The question of whether or not the FoB debate had any support among the citizens, as well as what really was the chicken and the egg in the discussion, thus seem to elude a final assessment.

The Political System Awakens

Given the growing political importance of the privacy problem, one could have expected the FoB 1970 to become an important issue in the general election campaign of 1970. Instead, the election came to be dominated by traditional political themes. It is striking that SvD, the

national newspaper that most intensely covered the FoB 1970 at the height of the media debate in October 1970, did not publish one single article on the population and housing census during the election campaign only a month earlier.[21] The political interest was thus not sparked until afterwards. The legislation on FoB 1970 had for instance been adopted without any deliberation whatsoever in the parliament chamber (SOU 1972:47, 42).

FoB as a Parliamentary Issue

When the political system awoke, the reaction became vigorous in return. When the newly elected Riksdag gathered in October 1970, at the height of the FoB debate, the government instantly received four interpellation and five parliamentary questions to answer. The initiatives came from all of the parties except for the party in power. Common to the interpellations and questions was the concern about the ability of the new technology to compile large quantities of information, opening for violations of the individual's privacy. Specific legislation protecting privacy in the data processing of personal data was now regarded as essential. Even though there was no polarisation with respect to the privacy threat itself, its causes were interpreted completely differently depending on one's political affiliation. To the non-socialist parties, the problem was above all the government authorities and the public data records, while the primary concern of vpk was the increased use of ADP-based personal data within the private sector. A main concern was whether private credit information records could fall into foreign hands. (Interpellations First Chamber (FC) nos. 46 and 52; Second Chamber (SC) nos. 81 and 98 year 1970; parliamentary questions SC nos. 197, 209, 211, 214 and 217 year 1970; minutes SC 1970-10-16, 16 f, 34 ff, 37; SC 1970-10-22, 4-10, 20 ff; SC 1970-10-29, 43-55; FC 1970-10-16, 4 f; and FC 1970-10-29, 6-22).

Enter: the Privacy Problem as Policy

The political process that would result in the birth of the Data Act had already been initiated when the Riksdag started to take a more pronounced interest in privacy issues in the autumn of 1970. The process came to be accelerated by the debate surrounding FoB 1970 and its

political sequel, but what really set it off was a completely different chain of events emerging out of the administrative applications and the problematic aspects of everyday ADP usage.

The privacy problem had been observed in the Riksdag for the first time in December 1967 through an interpellation to the Minister of Justice Herman Kling by the newly elected member of the Second Chamber Kurt Hugosson (Social Democrat) from Gothenburg. Hugosson, with a background as head of the Statistics Office of the City of Gothenburg, was concerned about the increasing commercial use of the local housing authorities' records and requested an amendment to current legislation that would make it possible to classify private data that the applicants in good faith had given to the housing authority. (Minutes FC 1967-10-25, 25 f) The background to this was a case where a private company citing the principle of public access to official documents had microfilmed the data, processed and stored it on a computer and then offered it for sale on the open market (Minutes FC 1967-10-25, 25 f). The Minister of Justice acknowledged that the interpellation had brought attention to complex problems that in the near future would demand the government to take a stand. He also felt that there were other aspects on the usage of computer technology that occasioned concern:

> *The technical development has led to the creation of previously unknown opportunities to withdraw and compile data from various records. As many records that now are public contain data of a personal nature about individuals, a compilation of such data can, if put to an improper use, expose the privacy of individuals in a way that is not acceptable.* (Minutes FC 1967-12-08, 51 ff; author's translation)

The Minister was not prepared to offer any amendments off-hand. Instead he referred to proposals from current or recently completed reports of the Publicity Committee, the Committee on Data Filing and the Privacy Protection Committee (Minutes FC 1967-12-08, 51). Several of the main features of the privacy debate that was to take place in the coming years were distinguishable already in this early exchange of views: the conflict between the principle of public access to official documents

and privacy; the commercial use of personal records; and the specific privacy threat that had arisen out of the linking and matching of records.

The Government Sets Up the OSK[22]

The issues would return to the parliament agenda just over a year later. During the general motion period in January 1969, two Social Democratic bills, identical in wording, were handed in to the First and Second Chambers. The introducers of the bills, Kaj Björk and Kurt Hugosson respectively, were concerned that the citizens' right to privacy was being threatened by the growing computer usage of both government authorities and private companies. They felt that the time had come to subject the privacy problem to more systematic examination – especially as the Privacy Protection Committee at the time had received no instructions to observe the development of computer technology in the field of personal law. Björk and Hugosson therefore wanted to see that supplementary directives were given to the Privacy Protection Committee or, alternatively, that a specific commission of inquiry, more closely connected to the Secrecy Act, was set up. (Private member bills FC no 301 year 1969 and SC no 332 year 1969)

Four months later, in April 1969, the introducers of the bills had their request granted when the government set up the Committee on Publicity and Secrecy Legislation (OSK) with the instructions to provide a comprehensive overhaul of the regulations on public documents and existing secrecy regulations stipulated in the Freedom of the Press Act. Part of the mandate was to investigate whether the principle of public access to official documents needed to be adapted to the new computer technology and whether there was a need for a specific data act for the public sector. At the same time, the Credit Information Commission (KUU) was set up to investigate the need for a data act in the private sector as well as the need for credit information and debt recovery acts. By supplementary directives in May 1971, the mandate of the OSK came to be extended to include the whole data act issue. (SOU 1972:47, 29-32, minutes from Cabinet meetings 1969-04-11 and 1971-05-27).[23]

Data and Privacy

In essence, the OSK mandate was to accelerate and apply the brakes at the same time. On the one hand, the committee was to propose how the principle of public access to official documents could be extended to apply also to computer media; on the other, it had to investigate whether public control should be limited so that people's privacy would not be encroached in the data processing of personal data. The task of balancing the opposing interests of publicity and privacy protection was indeed pioneering work. There were no international examples, even though legislation work was under way or was about to begin in a number of countries and several working parties within the OECD and the Council of Europe also had observed the problems.[24]

In the beginning, the main emphasis of the committee was on the publicity issue, and by the new year 1970 they had preliminarily settled for a legislation design proceeding from a modernised secrecy act and a specific information act concerning the circumstances in which a government authority would be obliged to produce information to the public (OSK minutes, 1970-02-02; and memo 15, 1970-01-30). Over the summer 1970 the discussion within the OSK concerned the need for a survey to reflect people's attitudes to questions about privacy. The intention was to initiate a public debate (OSK minutes, 1970-06-08).[25] The survey never materialised, but the committee still had their wish granted beyond expectation when the great FoB debate broke out in October. Subsequently, there was a noticeable change of wind, and the work of the OSK came to focus more on the privacy issues (OSK minutes, 1970-10-19).

OSK was a parliamentary committee with representatives from four of the five political parties in the Riksdag as members. In spite of its parliamentarian formula, OSK cannot be described as a high ranking political body. For instance, none of its members were central political actors in their parties. The chairman Rune Hermansson (Social Democrat) had been a junior minister in the Department of Justice between 1960 and 1966, but with a background in the judicial system as a judge of appeal he was generally considered to be non-political. However, the committee also had a comprehensive staff and was aided by experts, mainly recruited from different government authorities. These experts took part in the

committee's meetings and were to play an important role when it came to articulate different opinions and interests in the law making process. (SOU 1972:47, 3; OSK minutes 1971-04-15 and 1972-01-27).

The subreport *Data and privacy* was presented to the Minister of Justice Lennart Geijer on 30 June 1972.[26] The OSK had found a solution to the opposition between publicity and privacy protection, partly through some changes to the Freedom of the Press Act, and partly through a new data act. The same rules that already applied to documents would essentially also apply to computer media and other technical recordings. However, specific rules were proposed for the handing out of such recordings. The draft data act meant that data records containing personal data essentially could not be set up without permission from a special authority, the Swedish Data Inspection Board (DI), which would supervise the records and be authorised to step in with new or amended regulations. As a last measure, the Inspection Board would be able to revoke granted licenses. (SOU 1972:47, 13 f, 83 f)

The OSK was working in a time of rapid computer-technical development and change. In addition, political awareness of the issues grew solidly at the turn of the decade. This resulted in the committee being in focus for a number of interests, especially following the autumn of 1970. For instance, it had to receive a number of inquiries from authorities and public institutions on matters of secrecy or privacy, and at times it came to function as a kind of interim data inspection board. (OSK minutes 1970-08-24 and 1972-03-23) The political conflict level was low, especially given the strong ideological load of the privacy issues during the inquiry process. Party policy antagonism between the committee members was non-existent and the final draft could be presented in great unity among committee members as well as experts. (SOU 1972:47, passim)

The conflicts that did exist within the committee were limited almost exclusively to interests within the public sphere. It was especially the expert representing Statistics Sweden, Edmund Rapaport, who promoted a different line of policy than the rest of the committee on certain issues, for instance the further use of personal code numbers, public access to information stored on computers and the relations between central government and the new authority. However, these difficulties could be

solved through compromises that were acceptable to Statistics Sweden and at the same time satisfied the general demand for privacy protection. (OSK minutes 1971-04-15; 1972-01-27; and 1972-04-17 – 04-20)

The Government and the Riksdag Follow the OSK

The bill presented to the Riksdag by the government on 16 February 1973 corresponded to a significant degree with the OSK's report.[27] The Riksdag adopted the bill in substance. The views raised in member bills were all concerned with details. Several introducers of the bills emphasised that the data act was only a first step; the legislation process would have to continue and the privacy protection would need to be strengthened gradually as technology developed and experiences were gained.[28] Furthermore, the Committee on the Constitution emphasised in their report that the government bill should be considered a maiden work in a new and complex legislation area. Experiences made through the application of the act would show whether it met with the various demands made on it. Otherwise the majority of the committees concurred with the government bill. (Committee on the Constitution 1973:19, 6 f, 15 f)

The Data Act was adopted by the Riksdag on April 12, 1973. During the preceding debate, many of the demands and arguments that had been put forward in private member bills and earlier deliberations recurred. Despite minor disagreements about for example the proposed Data Inspection Board's mandate to regulate the government's own data records, there was great unity on the basic issues, both within the Committee on the Constitution and the Riksdag as a whole. Thereby, Sweden became the first country in the world to adopt specific legislation for the protection of privacy. (Minutes, 1973-04-12, 23-53; and Document of Notification 1973:131) With one or two exceptions, all member bills and contributions to the debate had been formulated from a "critical" view of technology. The "rational" dimension of the data policy of the 1960s was thus more or less absent during the Riksdag reading of the new legislation package. But the resulting legislation was nevertheless satisfactory also for authorities and interests who had promoted a "rational" view.

Discussion and Conclusions

This paper has discussed a turbulent period in contemporary history when computer technology as well as the entire rational society structure was being reassessed. From having been viewed as an administrative tool, increasing efficiency in the service of the expanding welfare state, the computer to an ever greater degree came to be understood as a control and surveillance technology during the second half of the 1960s. At the beginning of the 1970s computer technology joined nuclear power as the symbol of the large-scale and inhumane surveillance society. Thus, the unregulated use of computer-based personal records appeared as an obstacle to development. If the resistance to computerisation was to be overcome, it was necessary to bring the use of the records under the control of public authority.

There were two political processes that resulted in the government setting up the OSK, and later giving it its supplementary directives. The first process was initiated by the slowly stirring interest in privacy issues in connection with the data processing of personal data, and had its origin in the micro level of everyday use and experience. The second process emerged in the sudden surge of media debate on FoB 1970, and reflected the macro level of ideologies and the shifting ideas of the time.

The commission of inquiry can be viewed as a compromise between different interests and actors. Far-reaching restrictions of the use of computer-based personal records had been proposed in the privacy debate, including a ban on data records and/or the use of personal code numbers. Such restrictions would have had very serious consequences to authorities that were dependent on personal data in their activities, or made money from selling them. This primarily concerned Statistics Sweden. The central conflict of interest in the OSK came to take place between representatives of different government institutions and authorities. However, the interest from the private sector in the work of the committee was insignificant.

The Data Act as a Product of Compromise

Despite a mainly "critical" stand on technology, even the government bill, member bills and the Riksdag's decisions can be viewed mainly as products of compromise between what has earlier been referred to as

"rational" and "critical" positions. The government and the Riksdag went along with the proposal of the OSK and sought to oblige different interests of government authorities, not least those of Statistics Sweden. The result was that the previously unregulated access to personal data was restricted – at least on paper. Meanwhile, the use and expansion of the data records could continue, generally speaking. That it was at all possible politically to regulate the use of the computer-based personal records has to be credited to the fact that the Data Act saw the light of day in a formative moment when rational society structures for some time were subjected to intense questioning.

Common to more or less all the participants in the political process is that they did not discuss the need for data legislation as an effect of political or ideological change, but as a result of what seemed like an unavoidable necessity of technical development. It was not the change of the societal climate but the changed function and usage of computers that motivated the birth of the data act. Computer technology had thereby undergone a stabilisation process. However, a permanent stable state – closure – never took place. The interpretative flexibility was continuously present, as technology could be described as closed and open to new interpretations at the same time. That there was great uncertainty about what computer technology really represented and how it would develop in the future is emphasised by the fact that both the Riksdag and the government described the new Data Act only as a first step, and hence a provisional arrangement.

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Notes

1. Compare Ceruzzi (1998, 307): "Between 1945 and 1995 the computer transformed itself over and over again, each time redefining its essence."
2. The concept belongs to the Social Construction of Technology (SCOT) school, which describes how groups of both producers and users interpret new inventions in totally different ways. "The same" technical artefact is thus of different signification to different groups. There is no given way to design or use an artefact. What the artefact actually *is*, is governed by its social context; there is interpretative flexibility. Through the interpretative flexibility new problems arise; therefore new solutions and models develop constantly. According to SCOT, a certain technology is not stabilised until consensus has been established on a specific design. This is called "closure", and means that the interpretative flexibility ceases and the development process, for the time being, comes to a halt. See e.g. Pinch & Bijker (1987, 29 f, 41 ff) and Pinch (1996, 25 ff).
3. The Swedish abbreviation *ADB* (Eng. ADP) sometimes causes confusion. The correct interpretation is *automatisk databehandling* (automatic data processing) but we often come across the interpretation *administrativ databehandling* (administrative data processing). See further Johansson (1993, 80 f) and Bäck (1982, 30, 75).
4. For an international comparison focusing on the technical development, see Ceruzzi (1998, 77 f).
5. Already in 1963, approximately one quarter of the whole of Sweden's computer fleet, amounting to approximately 130 computers, could be found within the public administration (Johansson 1993, 75).
6. From 1966 and onwards, systems such as the Swedish judicial administration's information system (RIS), the national data system of the Swedish Enforcement Administration, the social security records, the National Labour Market Administration's information system, the central records of Swedish companies (CFR), the staff administrative information system (PAI) for all employees in government authorities and the government finance administration system (system S) were added. In addition, a central population record (CBF), which would later, in the early 1970s, become a controversial issue in the Riksdag, was planned. (SOU 1972:47, 109-148)

7. In 1969 SIBOL, a cooperation project for an integrated on-line payment system, was designed as a comprehensive system for payment agencies. The vision was that bank cards would replace cash ("the cashless society"). (SOU 1972:47, 187, 205 f)
8. However, as the scholar on the history of ideas Anders Carlsson has shown, there was some discussion on the effects of the "automation" of the working life already in the middle of the 1950s. In the automation debate, which reached its height in the election year 1956, rationalisation, increased productivity and an improved working environment were up against insufficient stimulation and threats of unemployment. The meaning of the concept "automation" was, as Carlsson argues, by no means obvious. Common to various attempted definitions was that somewhere in the production process there would be a machine, a "computer", which controlled the course of events. On several levels, dominating visions of technology, the math machine and nuclear energy could be tied together. The electron therefore became the symbol for the automation project. Two catchwords in the Social Democratic 1956 election campaign were "atoms and automation". See further Carlsson (1999, 134-149).
9. In the book, the "complete freedom democracy" (*Den Fullständiga Frihetsdemokratin*) promises to free man from the trouble of thinking and working. However, this agreeable existence comes to a disastrous end when the international computer network inexplicably suffers a breakdown. The disaster is terrible; the majority of the population succumb to starvation and hardship (Johannesson 1966, 52-57, 79-81 and 95-102). As Sven-Erik Liedman has pointed out, Alfvén wrote his book based on a situation where the threat mainly seemed to come from a rationally functioning but inhumane government apparatus. The new technology deprived people of their freedom of thought, not through draconic laws, but by eliminating, from the inside, their will and ability to think independently. This was the nightmare vision in Orwell's *1984*, even if government now appeared milder, but also more dangerous because of it. See further Liedman (1997, 392 f). A few years later, Hannes Alfvén was also among the first to warn against the risks of nuclear power. He had himself taken part in the development of the Swedish nuclear power programme, but now had started to doubt its security. It was, for example, Alfvén who in connection with the Swedish Centre Party's convention in Luleå three months before the general election in 1973 convinced the then party leader Thorbjörn Fälldin of the danger of nuclear power. Alfvén recommended an immediate end to continued nuclear power development. See further Elmbrant (1991, 138) and Fälldin (1998, 99 ff).
10. According to an article by the head of department Bo Wärneryd in *Statistisk tidskrift,* a periodical of statistics, in 1972, Statistics Sweden used more or less the same procedure when collecting the data as in 1965. Both population and housing censuses had also been preceded by information campaigns. (Wärneryd 1972, 177)
11. The summary basically reflects the news media debate, as it was presented in *Aftonbladet*, *Dagens Nyheter*, *Expressen* and *Svenska Dagbladet* during October 1970. The Committee on Publicity and Secrecy Legislation came to similar conclusions (SOU 1972:47, 41-42). See also Wärneryd (1972, 180, 184). According

to Wärneryd, the effect of the criticism was that people living in blocks of flats, who originally should have delivered their completed forms to the landlord representative, could instead, at the end of the collection period, send their forms directly to the municipal inspection body.

12. On Sweden as a special case in the international privacy debate, see also Anér (1975, 152 ff).
13. As the author and journalist Anders R. Olsson and others point out, the Swedish concept "integritet" (integrity), which is used as translation of "privacy", covers more than the English "privacy". It refers to the sanctity of private life, but also to independence and autonomy. Peter Seipel, professor of law at Stockholm University and director of the Swedish Law and Informatics Research Institute (IRI), has therefore suggested the Swedish term "personvärn" (protection of the individual) as a better concept when solely referring to the protection of private life. In writing this paper, I decided to use the term "privacy", however, as it is most often used in international reports and literature etc. See further Olsson (2000, 14).
14. Westin had been heading a large research project about various privacy-threatening technologies, such as secret wire-tapping and lie detectors. As the work progressed he also became alive to data bases and personal records. It was this part of the study that attracted international attention. Westin's research assistant, the Canadian and historian of law David H. Flaherty, would later become the world's leading authority on privacy issues. He is among other things well-known for the book *Protecting Privacy in Surveillance Society* from 1989.
15. See e.g. OSK memo 32, *Anglosaxisk integritetsdebatt*, 1971-02-22.
16. In the third volume of his magnum opus on the information age, "End of Millennium", Manuell Castells establishes that the break-through of information technology coincides in time with the serious crises in the world economy and the appearance of the alternative movements. Out of this historical coincidence, the new social system which he calls "the network society" is derived. (Castells 2000, 380)
17. Harry Björk creates a typical exposition of the public commerce with personal data in the debate book *Kontroll av individen* (*Control of the Individual*) containing contributions from a number of well-known left-wing personalities. The book was the first in a series about the future society and it was explicitly "socialist". See further Björk (1972, 70-73). A liberal perspective on privacy and computerisation was established by Kerstin Aner in the book *Datamakt* (*Computer Power*) from 1975. See further Anér (1975, passim). Sten Henriksson claims that the privacy issues turned out to possess populist powers like no other elements in data policy, and that due to this it continued its popular existence long after most people in politics and unions had lost interest. A manifestation of this was the great variety of debate books published in the early 1970s (Henriksson 1995, 17).
18. The CPR was primarily intended to meet the requirements of national registration and tax enforcement. With the help of terminals, government authorities would be able to connect to the record. But all data in the new record could already be found in existing systems. According to the Swedish Agency for Administrative Development, the CPR would even bring about an improvement from a security and

privacy point of view. When these assurances were not sufficient to calm the four parties, the committee on taxation suggested that a parliamentary board would be linked to the CPR. However, not even this could persuade the Riksdag majority, which claimed that a board would never be able to assure the same protection as would legislation on the matter. Laws should come first and computers next. Some parties were also of the opinion that the CPR was wrong in principle, as the risks of abuse of the information grew with the centralisation of the information flows. (Gov. bill 1972:1, appendix 9, 48-57; bills 1972:302, 415, 631 and 1454; report of the committee on taxation no. 17 year 1972; minutes 1972-04-21, 73-123) See also Anér (1975, 158) and Björk (1972, 73 ff).

19. The Parliamentary Ombudsman (JO) found in his decision that data collection should be made under greater secrecy and that the Population and Housing Census Act therefore needed changing. The Parliamentary Ombudsman also criticised the law for not indicating clearly the extent of the citizens' duty to provide data. He based his decision on the Council of Europe's Convention for the Protection of Human Rights, according to which restrictions of the individual's protection of privacy are only allowed if they have been prescribed by law.
20. Wärneryd (1972, 179-185). A group that was especially critical was, according to the field survey, residents in Stockholm. Also academic occupational groups were more critical than others. See also SOU 1972:47, 42.
21. During the period, the newspaper did contain two articles on computers and privacy threats written in general terms. See SvD (1970-09-26, 9).
22. The following section of the text about the internal proceedings of the OSK is, apart from the printed sources, based on personal interviews with Kurt Hugosson, Jan Freese, Karl-Olof Lidin, Edmund Rapaport and Per Svenonius.
23. The two member bills also received a positive response in the parliamentary committee process. See report of the Committee on General Preparation (no. 47 year 1969).
24. In the USA, a "Fair Crediting Act" was adopted in the credit information field in 1970. In the UK, a parliament committee was set up following the introduction of the "Data Surveillance Bill" in the spring of 1969. The West German state of Hessen adopted a "Datenschutzgesetz" in October 1970, which became the first legislation in the world to regulate automatic data processing. However, the law only covered the state's own records. In Denmark, Norway and Finland, commissions of inquiry were set up in the early 1970s with essentially the same mandate as the OSK. See further SOU 1972:47, 43 ff.
25. The attitude survey was instead carried out by Statistics Sweden and was later included in the supporting documents for OSK's part-report.
26. The committee continued its work until spring 1975. However, the later part of the OSK mandate falls outside the scope of this paper.
27. Looking back one can note the government forecast of the increase in the number of data records in Sweden containing personal data. From an estimated number of 4 000 records, the government made the assessment that the growth would correspond to approximately 500 records a year (Gov. bill 1973:33, 50).

28. See e.g. bill 1973:1638 (the Liberal Party) and 1641 (the Moderate Party).
29. All interviews were recorded on tape. The tapes are kept by the author.

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