The Ombudsman and Computerized Administration

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1. INTRODUCTION: DEONTIC SYSTEMS AND PUBLIC ADMINISTRATION

One aspect of the work of ombudsmen is the control of public administration, the review of decisions in order to ensure that the ideals of the rule of law and due process is observed. This is an important aspect in balancing the powers and distributing the authority in a society.

But public administration is changing. The Scandinavian welfare states may be an illustration of a general trend. The objectives of the welfare state requires mass administration, decisions which are relevant to large fractions of the total population. Such administrative systems would be impossible without the assistance of the computer.

In speaking of computers and the law, the image of the automatic judge is often invoked, a cold machine replacing the benevolent judge in court. This is a false picture. But it nevertheless true that in many jurisdictions the majority of decisions within public administration is produced by computer-assisted systems. The qualification of such decisions may differ, according to the view taken by the national law. But in the perspective of Norwegian and Scandinavian law, such decisions are legal decisions, and the majority of these legal decisions within our public administration is produced by computerized systems. The electronic judge may still be a vision, but the computerized civil servant has already conquered – and some will say contributed to – the maze of modern bureaucracy.

An example of such a system may be introduced for reference, the Norwegian system for housing aid ("bostötte"), which is computerized to a quite high degree. The system is operated by the Norwegian Housing Bank (owned by the state) and has been running since the early 1970's. It is based on a plenary decision by the Parliament, which grants to certain households an aid making up a fraction of the difference between "real housing costs" and "reasonable housing costs".

To apply for such aid, one only identifies oneself to the system. The system then accesses the population register to check how many individuals are living at the address of the applicant, and their relation to each other; it accesses the register of the tax authority on income to calculate the income brackets of the household; it accesses the register of the social security administration to check on the status of the applicant or other members of the household in respect to the different benefits; and it accesses the registers and tables of the Housing Bank to retrieve the correct rates for calculating an eventual grant. Twice annually more than 100,000 decisions are made in this way. Once part of the system, the decisions will be made on subsequent terms until the application is explicitly withdrawn. The decisions are printed out and mailed by the computer system. In the case of a negative decision, the reason is given exploiting the computer program which identifies the exact reason for the decision, and in the case of a positive decision, as a postal cheque.

This is an example of an administrative decision made according to a rather complex set of legal rules, but which are virtually “untouched by human hands”. It is mentioned both due to its high degree of computerization, but also due to the rather through analysis this system has been subject to at the NRCL (cf. for instance Rynning 1976, Hazell 1978). Examples will be drawn from this system in the following; and they should not be interpreted as criticism, only as comments upon properties of deontic systems.

This type of systems may be called “deontic systems”. There are actually several types of deontic systems, but they have one characteristic in common: Their programs represent legal norms. The programming language may be regarded just as an artificial language with certain properties. In this language, legal norms may be represented as they may be represented in the natural language of statutory instruments.

In this paper, the term “norm” will be reserved for the content of the law as interpreted according to the accepted legal methods on the proper legal sources. These sources will mostly be different texts – statutes, regulations etc. Interpreting this, the lawyer may arrive at an understanding of the law, and this understanding will be of a semantic nature, a norm or a system of norms.

A deontic system in the public administration will be a system that for some part represent a legal norm in its program. It may be a trivial norm, like the government’s deduction of taxes from the income of employees. But it may also be a more complex system, as exemplified by the housing aid system described above.

In this paper, some aspects and characteristics of such systems will be discussed. Obviously no comprehensive or coherent discussion will be possible – partly due to the constraints of length, but – more disturbingly – partly due to a lack of insight, understanding and analysis of such systems by lawyers.
2. Programming as rulemaking; rulemaking as decisionmaking

To the extent that a computerized system within public administration represents legal norms, these norms have to be represented in the program by the terms of the programming language. The programming language may be conceived as an artificial language not unlike some form of stunted English. But it has a property not usually found in languages — it is unambiguous.

In the natural language of a statutory instruments, there may be ambiguity or vagueness. Two lawyers reading the same text and reasoning according to accepted legal method, may arrive at deviating results — the same text (or set of legal sources) may contain arguments for different legal norms. The choice between the norms would not be resolved until some decision was made — by the public administration itself, by a court of law or perhaps by a rulemaker, revising the text. And by this amendment, new possible ambiguities would perhaps emerge.

This is not so in respect to a programming language. There is a direct one-to-one relationship between the terms chosen in the language, and the actions carried out by the computer. Given the same instructions, the same computer will always carry out the same sequence of operations. There is no room for a second opinion.

This small comparison between the properties of statutory language and programming language discloses something important with respect to the programming of deontic systems: It will always have the form of an interpretation. The programmer will read the natural language texts and represent his understanding of the norms in the unambiguous terms of a programming language — and this will be as much of an interpretation as when a civil servant bases a decision in a single case on the same legal instruments.

This interpretation may, of course, be quite trivial — as it certainly is with respect to the development of a program, for deduction of taxes from gross income. But it may also be more complex. In respect to the housing aid system mentioned above, it was documented that the program, contained a set of rules — differentiating the rate according to zones within a city — which were not apparent from any of the legal instruments which the programs were representing (Rynning 1976: 50). One did in this case have an example of a program which in some small degree directly determined the rights of individuals with respect to housing grants. According to Norwegian law (Act of public administrative procedure sect 38, cfr. sect 39), such a legal instrument has to be published according to a special routine in order to be recognized.

Without pursuing this example, it will serve to emphasize that programming actually is interpretation — and an authoritative interpretation determining in detail the legal norms, is actually rulemaking. A decision to develop a deontic system must also be interpreted as a decision to delegate some legislative power on a detailed level to those responsible of the programming.
It should be a cause for concern that those responsible for developing such programs are not always recognized as applying law. It is at least as important and critical to make a deontic system as to make the legal decisions these systems later will stamp out. One should not entrust this process to persons whose lack of legal qualifications would exclude them from making the same decisions.

In some jurisdiction the importance has been sufficiently realized for specific regulatory law being passed to govern the development of deontic systems, where also the cooperation between lawyers and those responsible for the programming is recommended (Germany and Austria).

In the Federal Republic of Germany such regulatory law is given both by the Federal State (Bekanntmachung der Grundsätze für die Gestaltung automationsgeeignete Rechts- und Verwaltungsvorschriften of November 29th, 1973) and several states (cfr. review Bing 1983: 46-47). The Austrian "Vorläufige Richtlinien für die Abfassung automationsgerechter Rechtvorschriften" are of December 23rd, 1970.

But for those responsible of reviewing public administration, it may be of special interest to examine whether the rules of delegation and legality is observed in respect to the programming of computerized systems – or whether this is wrongly regarded as only some technical task having no impact on the law itself.

Another aspect of these system should also be emphasized. When put into production, the system will make decisions. These decisions will be according to the programs with no deviations at all. Reviewing the decisions will not be very meaningful – it will only indicate the nature of the programs, which may be inspected and reviewed directly.

In this sense, the traditional distinction between rulemaking and decision-making is eliminated. A rule represented by the computer program is also an implied decision – rather than illuminating by hand pages copied from an original, they are now stamped out by a printing press, and the quality of that press rather than the hand of the copier, becomes important.

To the extent that ombudsmen review decisions by the public administration, this is consequential. As the decisions are the imprint of the rules, the focus must be shifted from the decisionmaker to the rulemaker. This may imply a different emphasis in the role of the ombudsman. The review of programs may be important. But it may also be proper to review such systems before the first decisions are imprinted and reactions from the public are received. It may be appropriate to examine the systems themselves in the development stage, in order to ensure that the design will further or reconfirm the ideals of the rule of law.

Actually, the emergence of data protection authorities may be seen in this perspective. Such authorities have powers of an ombudsman in many juri-
dictions, and have a special charge in respect to computerized systems utilizing personal data. Their authority is, however, generally limited to the data itself (the factual aspect of the decision) while what is mentioned above is the programs (the normative side of the decision). But the need to focus the attention of these authorities on the system rather than on the single decision is prevailing in this legislation, most pointedly in those legislations—like the Scandinavian—where a prior license is required for establishing certain types of personal data systems.

3. Filling in a Form: The Implied Decision

The legal norms are represented by the computer programs. But the facts of the case to be decided are not part of the program. The program has, so to say, neatly labeled boxes in which the facts are to be placed according to a well-defined scheme.

This makes the computer program in principle quite similar to a form, which has preprinted legends explaining which data is to be filled into its various boxes. Somebody has to fill in this form, and one may distinguish between two strategies for capturing the necessary data. One strategy is based on the matching of different computer systems, and this will be discussed in some more detail below. The other strategy is based on some civil servant entering the necessary data, much in the same way as when these data are entered onto a form. The civil servant is in this situation some sort of interface between the reality and the system, and it is the understanding and classification of this civil servant which will be adopted by the system.

One may be reassured to find this human element even in computerized systems. But there are a couple of interesting aspects of the role of this civil servant.

The data to be filled in, may be described in the norm by strict criteria—like, for instance "age" or "sex". But other criteria may be quite vague—like an example disclosed in a Norwegian study, where one criterion with respect to social security aid for single mothers was whether the woman in question actually was "living under the same roof as" the father of the child. This criterion is vague, and was in some instances, answered affirmatively when the man and woman lived in separate apartments in a high-rise of several hundred flats—something which obviously is a controversial assessment.

This type of interpretation of criteria and classification of the facts of the case in respect to the structure of the legal norms, is a traditional and well-known characteristic of legal decisionmaking. Introducing a computer system, however, one removes the linkage between this classification and the outcome of the decision. Traditionally the effects of the classification will also influence the classification itself—there is some interaction between re-
sult and classification. Removing this interaction will have effects with re-
spect to the quality of filling in the form.

One has actually had indications of attempts of "back-seat driving". If the
civil servant is aware of the relations between the values ascribed to criteria
and the outcome of the decisions, the civil servant may be tempted to de-
scribe the case in such a way that the computerized systems arrive at the re-
sult preferred by the civil servant. This may be seen as a struggle between
the human decision maker and the computerized system, where the civil ser-
vant uses his position as a reality interface to reclaim the control over the
result which has been lost to the computerized system.

This problem is emphasized in respect to discretionary decisions, by which is
implied a decision in which a certain qualified form of legal assessment or
evaluation has to be excersised.

The theory of discretionary decisions (a term which perhaps is not quite ap-
propriate in English) is based on recent Norwegian theory of norms, espe-
cially the works of Sundby 1974 and Eckhoff/Sundby 1976. In the context
of this paper, the theory as such will not be discussed, but the problems
exemplified have as their background an analysis based on this theory. Cfr.
Bing 1980.

An example may be the assessment of whether a person is disabled according
to the social security legislation. This is in Norwegian law not purely a me-
dical decision, the decision should take into account numerous aspects of the
situation of the applicant – like education, training, job opportunities in
the district of the applicant, age etc.

Characteristic of discretionary decisions is that (1) it is not possible prior to
the decision to determine exactly which types of facts may be relevant, and
(2) it is not possible prior to the decision to determine the relative weights
of the facts of a case.

Accepting that this theory is appropriate, we have identified a limit of what
types of legal norms may be contained in a computer program. A discreto-
ary decision may not be represented, as both the types of possible relevant
facts and their relative weights in all possible situations must be determined
in advance. The law is, however, riddled by discretionary decisions, and the
designer of computerized systems has only a very limited choice in tackling
them. Of these only two are used in practise.

One solution is to reformulate the norm – reconstructing the norm as a set
of strict rules and abandoning the notion of a discretionary decision. This
presumes that the designer has the necessary authority as a rulemaker.

Such a solution may be appropriate. In changing the administrative environ-
ments from humans to computers, one does – of course – also change so-
me of the basic considerations to be taken. A civil servant may have diffi-
culty handling a norm constructed by one general rule and a large set of ex-
ceptions to this rule – the logic of exceptions whithin exceptions is difficult to handle. It may for the human be more appropriate to have a general rule and a possibility of making discretionary exceptions to that general rule. For the computerized system, the complex rule pattern is quite easy to handle. And for the person which case is to be decided, it will depend on the area of law which solution is to be preferred – the discretionary nature of the decision will allow for greater flexibility, but also for greater subjectivity on the part of the decisionmaker.

If the discretionary norm is not reformulated, the discretionary decision will generally be defined as a manual sub-process. The form to be filled in by a civil servant will have a line for the criterion “disabled?” This is filled in with a “yes” or a “no”, and the computerized system takes it from there.

This may be quite a satisfactory solution, leaving to the civil servant what requires human understanding, and to the computer the tedious calculation of rates etc. It has, however, also a few risks. Again, the link between the result of the decision and the major discretionary element has been eliminated. The nature of the decision may not be apparent to the civil servant, whose activity is perceived as describing the facts of the case in an objective or, at least, impartial way rather than making difficult legal decisions with farreaching consequences for the persons concerned.

This small discussion of the interaction between civil servants and computerized sistems has aimed at highlighting how the decision situation may be changing. Such changes may affect the very nature of decisionmaking whithin public administration, and may again be consequential to those reviewing this system.

4. Matching and linking: The complex pattern of expanding circles

Observing the rain pattern on the surface of a pond, one easily becomes fascinated by the complex and changing ripple of expanding, concentric circles. The cause of one such circle is simple and trivial: the impact of a raindrop. But the result of a light shower is too intricate to grasp. This may also be a picture of the interaction between computerized systems in public administration – the single link may be explained in detail and easily grasped, but the understanding in legal terms of the total system, may be evasive.

As described above, the classification of the facts of the case according to the norms represented by the deontic system, has to be made by a civil servant. A tempting possibility for the designer of a deontic system would be simplify this by utilizing some facts already specified with respect to another system. Rather than have the civil servant specifying the income of the applicant, the deontic system accesses the system of the tax authorities, matches the identification of the applicant to the identification of persons sub-
ject to tax, and retrieves the income figure specified in that system. This fact is then placed into the appropriately labeled box for secondary use.

In this way, a link has been established between two systems. In our context, we will not consider the data protection aspect of such matching and linking, but only the consequences this has in respect to the decision of making secondary use of the data.

One aspect of such linking is that of a definition. The small boxes in the different systems all have labels. The system designer is hunting for another system which already has a box with the same label as the box in the new system. But – as lawyers know – two criteria labeled with the identical word in two different acts may not necessary be identical. The context or purpose may make the detailed interpretation of these identical words different in important aspects. The linking of two systems is actually a legal proposition saying that within the context of both systems, this criterion is identical for all possible cases.

This in itself is a strong proposition. But one should also be aware of the fact that this interpretation embraces more than the meaning of the criterion in a strict sense – one has also to include the pragmatics of the system. Two examples may illustrate this:

Firstly, the data may refer to different time periods. Utilizing the income figures of the tax administration, one will always utilize dated figures – in Norway these will reflect the income situation 9-21 months old. This has consequences when used in certain systems. For instance, the system for housing aid bases its income criterion on these figures. If a household changes from two to one income, which is not unusual in the case of childbirth or job layoffs, there will be a timelag of 9-21 months before this is picked up by the routines of the system. Actually, in this respect a manual safety-valve has been introduced to avoid some of the adverse consequences of a rigid application of the routines.

Secondly, the requirements of verification may be different. An anecdote (which is not verified) may illustrate this. In Norway, the Central Bureau of Statistics communicate regularly to the National Insurance Institution the identification of individuals who have died. The NII checks whether these still draw social benefits, and in case of a positive check, a request for an explanation is made to the local social security office. In one case, the local office responded with some amazement, as the NII had implied that all the old age pensionists of its community had died. This is obviously caused by more lenient verification procedures of the SBS – the result in forms of slightly unreliable statistics is obviously easier to accept that old people suddenly being denied their rightful pension, with results which might endanger their welfare or health.

These two examples may suffice to emphasize the importance of linking and matching of registers. But this practise also creates a complex pattern which
may be difficult to overview – the way systems relate to each other is complex and may create anomalies in the normative structure. This has especially been discussed in respect to the interwoven fabric of tax and social security law, where anomalies known as “poverty traps” have been identified. A major reason is that the rules to a large extent rely upon the same criterion – the gross income of an individual or a family. As the gross income increases, social benefits are excluded – and this may cause a negative growth in the available income for anormal situations. It has been reported from Denmark (1972) of an instance where the available income for a single supporter with three children was reduced in the interval of gross income between 30,000 and 90,000 Danish crowns (Byrgesen 1975).

An example having the seed of such an effect may also be found in the Housing Aid System. To be eligible to housing aid, one has to belong to certain qualified groups of persons. One criterion is that a loan on social indications for the rehabilitation of an old house or a flat has been granted by the Housing Bank. These loans are quite cheap compared to the usual bank loans. But if no such loan has been obtained, one may nevertheless have to take on the more expensive loan. The outcome is that if one gets the cheap loan, one also may benefit from housing aid; while if the same person has to take a more expensive loan – and as a consequently has a relatively higher increase in housing expenses – no housing aid would be forthcoming. One may observe a tendency in the system to reinforce itself – those aided once, are automatically qualified for further aid – and the reasonableness of this situation will rest fully on whether secondary use of the decision by the Housing Bank on social indications are appropriate in respect to the Housing Aid scheme.

One of the major concerns with computerized systems within public administration is this growing complexity and interdependence. Some aspects have been mentioned here, but there are perhaps more serious issues at stake: Such structures make it difficult for the rulemaker to foresee the consequences of changes in one system, and the lack of insight may make the rulemaker reluctant to make drastic changes as the effects are difficult to predict. The computerized systems may contribute to a growth in complexity of the legal system which one does not want, but find difficult to avoid. They also introduce a new kind of administrative consequences of amendments – amendments not catered for in the existing programs, will require reprogramming which is time-consuming and therefore introduces rigidity in the public administration. Such issues, which will not be discussed in this paper, may make the growth of computerized system within public administration a concern with respect to the rule of law and appropriate control of the decisionmaking systems.
Traditionally, the citizen has the possibility to appeal a decision made by public administration. Such an appeal will generally be made to a superior public agency – which will look into the procedure followed in making the decision, the data on which the decision was based, and the law which was applied. Appeals may also be directed to the ombudsman, who may review these three aspects of the decision.

One of the major problems of computerized systems in public administration is the application of the appeal system to the decisions stamped out.

Obviously, one may test in a traditional way whether the data specified for the decision were "true" or adequate. This would be to review the filling in of the form discussed above, and it should be appreciated that this in itself is important. Also major legal decisions may be implied by this specification – as illustrated by the answer to the question of whether the applicant is disabled.

There is, however, a tendency to design deontic systems in such a way that the specification of facts is limited to strict criteria, or only to secondary use of data collected from other systems. To the extent that this is achieved, the review of the specified data easily becomes a trivial task of checking whether the data is correct.

In addition, to the extent that data has been communicated from another system, one may have a problem of authority. If a decision of agency A has been appealed, obviously that agency may amend an erroneous decision. But the result may hinge upon a fact which has been lifted out of the system operated by another agency, B. And agency A has not the authority to review decisions of agency B, even when they disagree with that decision. The linking of systems is therefore also to some part a delegation or division of authority between agencies which may have an effect on the control regime for the decisions supported by the deontic system in question.

Also, one may review in a traditional way whether the correct procedures are followed. But this will be limited to that part of the system which is not computerized. In the computerized part of the system, the same procedure has been followed for the case under review as for all the other cases which has been flushed through the system. And this also holds true for the law applied as far as this is contained in the program.

Consequently, the meaningful review will only be directed towards the human sub-systems of the total decision system. And the activities of the civil servants acting as the reality interface to the deontic system may easily be trivial. It obviously is of little interest to take the same data and run it for a second time through the computerized system: The results would necessarily be identical as the first time around.
This may lead to a situation where the traditional review of decisions are found to be inadequate. At the same time there have been tendencies of a relative high appeal rate in respect to computerized systems. This probably is related to the form in which decisions have been communicated to the citizen, and may be an indication of badly formulated decisions and documents something which may have been rectified over time as systems of an improved design has been introduced. Actually, computerized systems may contain tailormade and lengthy explanations and be much more informative and individual within the context of mass administration than possible by preprinted forms or other means traditionally utilized.

In respect to the Norwegian Housing Aid system, decisions from this could initially be appealed to the Housing Bank. The system made approximately 100,000 decisions every six months, and of these some 10 per cent were appealed. The Housing Bank did not have the necessary staff to handle that number of appeals manually. And the review would also in that case seem rather futile, as all data was collected for secondary use from other systems, and no human intervention had taken place. The review was restricted to check that the computerized system had not broken down. The result was that the appeal system was abandoned (Frihagen 1975: 197). Today, there is only possible to bring a decision under review if the data on which it is based, is proved to be erroneous something which rarely is possible for the reasons stated.

This is one of the justifications for changing the perspective from decision-makers to rulemakers. The norms embedded in the computerized system would obviously still be open to challenge the public agency in question would probably be reluctant to admit that the program was an inappropriate representation of the relevant law, but this issue may also be taken to court.

In such a situation, where the focus is on the program and its representation of the law, several issues will become of interest. One issue will be the importance placed by the court on the fact that this program has not only produced one, but several hundred thousand decisions. In most legal systems there is reference to the use of a legal norm if a legal norm has been applied over a long time and in a great number of cases, it will be recognized as law. But this presumes use in the sense that civil servants or lawyers have repeatedly applied the norm. In the case of the deontic system, there may only be one programmer making a few inappropriate statements and this is then repeated over and over again by the computer. Will or should the use by a computer also be recognized as relevant use? There may be a sound argument in favour of this, as these decisions have had effects for real people, and it is the content of the decisions rather than how they are made which is important.

Another issue will be the ex officio amendment of prior decisions. If for instance a court finds that the program represents the law in an inappropriate way in some detail, this would in a traditional system have the effect that
the decision under review should be amended. The public agency in question would not have any practical possibility of identifying other decisions to which the same reasoning could be applied and corresponding amendments made. It would probably rely upon persons reacting on the information derived from the court's decision and appealing to the agency in respect to their own prior decisions. If the decision of the court was found to be relevant, the public agency loyally would amend their prior decision.

But in respect to a computerized system, the public agency will be able to identify all the prior decisions in which the critical element may be found. The question arises whether the agency should then be obliged ex officio to make such amendments. And if the amendment has a negative economic effect - what relevance may this have for the review by the court? Instead of correcting one erroneous decision, the court may find itself correcting several thousands with economic consequences of another scale.

And obviously, such issues are also relevant when not a court, but an ombudsman reviews the decisions and the computerized systems.

One possibility of reviewing mass administration is to change the perspective from the individual decision to the aggregated mass of decisions. An example is a qualitative review made by the National Insurance Institution in Norway, based on two quite simple questions (cfr. RTV 2983):

"Are all necessary facts collected?"
"Is the result in conformity with the law?"

Without discussing this in detail, one may be interested to learn that the fractions of errors with respect to the two questions ranged from 0.5 per cent (question 1 with respect to refunds of doctor's bills) to 23.8 per cent (question 1 with respect to training, reeducation etc - and in this case, the statistical significance is somewhat doubtful due to the sampling).

This qualitative review was made of decisions in a traditional mass administrative system, but where there are comprehensive computerized systems supporting the manual decisions. The computerized systems do not make mistakes, but this is not quite reassuring if the data specified to them have the quality indicated for some categories in this review. It would seem that in order to control the computerized public administration, and enforce our traditional standards of rule of law and due process, we must also develop our schemes for reviewing its decisions and decision-making systems. The change in perspective from decisionmaker to rulemaker, and from the individual decision to the overall quality of the system, may be necessary responses to the challenge of the deontic systems.

6. THE PRINCIPLES OF EQUALITY

Finally, let us take a brief look at one of the standards making up our ideal of the rule of law - the principle of equality. This is the principle that
equal cases shall be decided in the same way – the requirement that we all shall be equal in the eyes of the law.

It is often said of computerized systems that they always will decide equal cases in the same way – and that they therefore will represent a guarantee with respect to the principle of equality. And this is true – with the important qualification that it is only cases which are described in an identical manner, which will receive the same treatment. The computerized systems relies upon the specification of facts by some human somewhere in the system – and only if the descriptions are adequate, will the decisions fulfill the principle of equality.

But the computerized systems will only see those aspects of the case which are made visible through the legal norms – those facts qualified as relevant by the norms, will be the windows of the system into reality. And the rulemaker may choose his facts to make the computerized system as efficient as possible.

An example may illustrate the point. For calculating the tax levied by the municipality on the use of fresh water, one traditionally has a certain rate for the volume of water used.

The usage is measured by a meter in the house or flat, and the water board employs persons to inspect these meters and note down the measured usage. Obviously this is quite an expensive collection system. Therefore many municipalities have changed their tariff structure, having a rate relative to the size of the apartment or house – based on the simple assumption that the larger the house, on the average the larger the water consumtion.

This seems to be a trivial example. And it is still trivial when discussed in polite terms by an oldfashioned gentleman in the local paper of one small Norwegian town, pointing out that he lives with his wife alone in a large house with a view to a series of small bungalows bustling with families – and where these families obviously need and use more water than he and his wife, but pay less.

This example may illustrate that the principle of equality is not only a standard for decisionmakers, but also for rulemakers. Legal norms should be designed to classify cases in an appropriate way. When “equality” was used as a slogan under the French revolution, it was not primary to require that all be decided equally under the law, but to require that the law should be changed, and not make inappropriate distinctions between citizens and noblemen.

And it may be appropriate to conclude the paper on this note pointing out that computerized system is a dynamic force which changes not only the decisionmaking system, but also the legal norms by which the decisions are made. There are ideals which need a defence in order to preserve the law true to our traditional ideals. And therefore the deontic systems cannot be
seen as a responsibility of system designers alone – they need to be developed under the active participation – and criticism – of lawyers.

**Literature**


A. Frihagen, *Formalningsrett*, del 2, Oslo.


