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Motzfeldt, Hanne Marie; Næsborg-Andersen, Ayo

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Developing Administrative Law into Handling the Challenges of Digital Government in Denmark

Hanne Marie Motzfeldt and Ayo Næsborg-Andersen
Center of Legal Informatic, Department of Law, University of Aarhus, Denmark
Department of Law, University of Southern Denmark, Odense, Denmark
hmm@law.au.dk
ayo@sam.sdu.dk

Abstract: Denmark is far in developing Digital Government. Two essential challenges have, however, emerged. First, the use of information and communication technology (ICT) has caused unlawful administration in some areas due to deficient and faulty programming, in some cases violating the very core of rule of law. This unwanted side effect of digitalisation has been counteracted by a development of new principles of Danish administrative law; administrative law by design and the requirement for a good administration impact assessment. Administrative law by design imposes a duty on public authorities to apply a value-based approach and to ensure relevant legislation and unwritten principles of public administrative law are embedded into the design of ICT. Good administration impact assessment entails a requirement for mapping all relevant legislation and principles of administrative law as part of the development of a given technology, if it is to be used by public authorities. Second, a major challenge is the skidding of control and insight as the digitalisation transition progresses and the technologies used develops. Some Danish authorities have already lost the oversight, the knowledge and the control of the systems used within their areas of administration, as also described in this article. During the summer of 2017 Danish administrative law might have adjusted to this challenge as well. The Parliamentary Ombudsman stated that in some cases the explicit acceptance of the democratically legitimised parliament, in other words legislation, is needed, if private companies are to develop and operate technologies used in the public sector. The aim of this article is to give a brief description of these two challenges caused by digitalisation and to hopefully serve as inspiration for others facing similar challenges and to give a more comprehensive insight in the subsequent development of Danish administrative law.

Keywords: Public-private partnership, outsourcing, Rule of law, e-government, Digital Government, the Danish Parliamentary Ombudsman, Administrative law by design, digitalisation, administrative law, good administrative impact assessment.

1. Introduction

In 2016 Denmark ranked 9th among the world e-government leaders (United Nations Department of Economic and Social Affairs, 2016). This is, among others, the result of a lengthy transition from manual and paper-based public administration to Digital Government, which has continually caused considerable, if varying, legal challenges. Denmark is traditionally compared to Norway when it comes to administrative law, as the administration in these countries developed concurrently under the Danish king, before Norway gained independence. In Norway, however, the legal scholars have done extensive research on this subject, and thus had influence on the transition of the administration – something which has not happened in Denmark (Bing, 1986). The situation in Denmark is therefore unique, in that the digitalisation is far advanced, but has mainly happened without the influence of legal scholars. This article will focus on two very essential challenges which have contributed to a development and adjustment of the principles of administrative law through the practice of the influential Danish Parliamentary Ombudsman.

The first of these challenges is the requirements of administrative law often being neglected when new technologies were developed for administration in the public sector. Such legally inadequate designs led to costly abandoning the use of purchased systems, since the use was incompatible with fulfilling the basic legal requirements of openness, documentation, public access, protection of personal data, etc (Graversen, 2015).

Second, some areas of the public sector have lost substantial knowledge of, insight into and control over the technologies used, as the transition into digital administration progressed and the technologies became more and more advanced. The primary cause is that the development of the digital infrastructure of the public sector is performed by the private companies, winning public procurements, and the authorities themselves rarely conduct the subsequent operation and maintenance. The area of tax is one example. In 2015 the Danish

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Minister for Taxation had to explain to the Danish Parliament that his administration had lost control of the 200+ systems used in the area because:

> *"[k]nowledge about how data and business processes, which are integrated into the IT systems, are related, is to a great extent located at SKAT's [tax authorities] providers and not with SKAT itself. Furthermore, the data and the systems are in many cases poorly documented, and thus, SKAT does not have sufficient insight into them. These structural challenges limit SKAT's possibilities of managing and controlling the development of the IT support. This also hampers outsourcing the systems, changing providers, and ensuring IT solutions are in accordance with the requirements of there levante regulation s and are flexible enough to adjust to legislative changes …" (the Danish Ministry of Taxation, 2015).*

Another example is the Danish Police. In 2015 the Danish National Police had to refrain from tendering offers on development and maintenance of a number of key systems because of poorly documentation of the systems. Thus, it would be impossible for anybody but the original provider to make a bid (the Danish Parliament, 2015).

This article will illustrate how new principles of Danish administrative law have emerged in response to the first of the above-described challenges stemming from the transition from manual to digital administration. Next, it will describe how an old principle of administrative law rooted in the allocation of power in the constitution might be adjusted to fit the digital age – thereby counteracting the above mentioned second challenge of loss of knowledge, insight, and control.

First, to put the described challenges in context, different categories of Digital Government are outlined in Section 2. In Section 3 the development in administrative law facing the first challenge is described and analyzed. Since the main source of new principles or adjustments in Danish administrative law is the opinions of the Danish Parliamentary Ombudsman, this office is introduced in section 3.1. After this brief introduction selected and illustrative opinions from the Danish Parliamentary Ombudsman concerning the Principle of Administrative Law by Design and the national requirement for a Good Administration Impact Assessment are analysed in Sections 3.2.1. and 3.2.2. Section 3.2.3 is a short summary along with a brief discussion.

Next, the article discusses the possible responses to the second challenge; the Danish authorities, as an unintended result of the digitalisation, losing their knowledge of, insight into, and control over the technology used to carry out their assigned functions. In section 3.3.1 we introduce the unwritten Danish doctrine of delegation, followed by the discussion of a recent published opinion by the Danish Parliamentary Ombudsman addressing the use of private providers of digital services (section 3.3.2). In section 3.3.3 follows an analysis of an adjustment of the Danish doctrine of delegation and in section 3.3.4 there is a summary.

Finally, section 4, assesses if there is a common denominator for the two areas. Since public authorities all over Europe are responsible for ensuring lawful administration within their fields of administration, section 4 also briefly discusses the potential of Danish experiences to inspire and serve as an input in the hopefully forthcoming discussions of the best practice in devolving Digital Government at a European level.

2. Danish Digital Government

Digital Government is also known as e-government and denotes the public authorities' use of ICT to carry out their assigned functions (Alpar and Olbrich, 2015). The purposes and functions of ICT in public administration have significance for legal scholars, for whom, in general, it is useful to distinguish between inward and outward administrative activity. Outward activities, especially those that directly affect citizens' affairs, often raise major concerns compared to the inward part of the administration. For example ICT used for communication between public employees will be of lesser interest (and concern) for legal scholars working within the area of administrative law than ICT used to communicate with citizens.

At the same time, from a legal point of view, it is useful to keep in mind that the development of Digital Government has had several stages, and the legal challenges have increased in complexity and impact over time. The first stage of developing Digital Government took place in Denmark from the 1970s and up to the beginning of the 1990s. During this period the Danish public authorities started to bring ICT into use, but

mainly for carrying out inward administration. Electronic records and databases took over from filing cabinets and manual registers. Computers replaced typewriters and electronic messages superseded paper mail. This use of ICT is in Denmark often called the first generation of Digital Government, or simply `electronic paper´, signifying that the use of ICT merely lead to a replacement of paper, and that the technologies used must be activated by human case officers (Motzfeldt, 2015 and Motzfeldt, 2017). In other words, this is a kind of digital administration in which technology only operates as tools for the authorities' case officers.

The second stage of developing Digital Government in Denmark started in the 1990s and is still on-going. From the mere use of ICT as a relatively simple tool to perform administrative functions, technological advances engendered compound and complex systems. This use of technology in the public sector is often termed case-working systems, since these operating systems and their programming are based on the presumption that administrative procedures and results, even decisions directed at the citizens, can be based on hard programming or machine learning algorithms. These technologies differ from the first generation of Digital Government in many ways, but from a legal point of view it is particularly relevant that the use of ICT in the second generation of Digital Government often involves or affects citizens directly (Schartum, 2006). In other words, ICT in this generation concerns outward administrative activity.

In Denmark the implementation of this second generation of Digital Government started with the use of decision-support systems and was later supplemented by decision-taking systems. During the '00s, Danish public authorities put decision-support systems into use on an increasingly larger scale, especially in taxation as well as the administration of environmental issues. In these cases the technologies carried out functions previously performed by human case officers (Spies and Blume, 2005). Decision-support systems often start the caseflow by retrieving information from citizens through web-based electronic communication and afterwards automatically supplement this information by searching through the large public databases. The retrieved information is then most commonly used to automatically generate calculations, draft letters, etc. A modest example of a widely-used Danish decision-support system is to be found in the day-care area, where a mandatory web-connected self-service system takes care of the application process while also including several functionalities to support the case officers' work. The system can e.g. collect income information from an official database and calculate user payments, including statutory deductions, sibling discounts, etc. (KMD, 2017).

Decision-support systems differ from the fully-automated administration by the fact that the automatically-generated material is supposed to be reviewed or adapted by a public employee - i.e. a human case officer. In the 2010s the development of Digital Government in Denmark continued, introducing decision-taking systems. Within this kind of Digital Government the technologies are designed to initiate, process, communicate and make relevant decisions - even carry out the decisions, if possible. No human case officers are involved (Motzfeldt, 2017). These systems are widely used in taxation, retrieving information from employers, banks, etc., calculating taxes and automatically withdrawing the calculated amount from citizens' salaries.

Compared to the first generation of Digital Government the importance of ensuring the legal position of the citizens through the design and programming of ICT used by the public authorities becomes more evident in the second generation of Digital Government. This is not only due to the direct interaction with the citizens via web-based channels, but also the fact that faulty operating systems or incomplete programming as a matter of course often affect the very substance of the decisions directed at citizens (Vang, 2005). Thus, it is hardly a surprise that the implementation of the second generation of Digital Government provoked a development of Danish administrative law, causing the clarification of the emerging new principles of administrative law by design and the requirement of good administration impact assessment.

3. Developments in Danish administrative law

3.1 The Danish Parliamentary Ombudsman and Digital Government

To fully understand the significance of the case law of the Danish Ombudsman, one must bear in mind that Danish administrative law has historically developed in an interaction between supervisory authorities and the jurisprudence with the Ombudsman in the lead role rather than the courts. This is probably due to a combination of many facts such as a general reluctance towards judicial review (Wind, 2010) along with the absence of administrative courts in Denmark. Additionally, judicial review is a lengthy and expensive process, resulting in very few lawsuits against public authorities. In contrast, all citizens can file a complaint at the

Ombudsman's office for free in accordance with Danish Ombudsman's Act. As an example of the significance of the Ombudsman, an influential national handbook on administrative law cites more than 700 opinions of the Danish Ombudsman and fewer than 300 rulings from the national courts (Fenger, 2014).

Consequently, the opinions of the Ombudsman are generally considered to be the main source of information on the developments of Danish administrative law with the opinions clarifying already existing legislation or principles as well as developing principles further when needed, even re-formulating and adjusting them. While not legally binding, the opinions of the Ombudsman are generally followed by the public authorities and thus serve as a source of administrative law (Sørensen, 2012).

Aware of the risk of non-compliance with the requirements of administrative law, the Ombudsman has consistently monitored the implementation of ICT in the public sector (the Danish Parliamentary Ombudsman, 2016). In the early stages the Ombudsman often found that compliance with administrative law concerning procedural matters was hindered when different technologies were brought into use by public authorities, such as a case discussing whether all documents from authorities should contain handwritten signatures or if an electronic facsimile could be inserted instead (the Danish Parliamentary Ombudsman, 2008). Another earlier example showed neglect of the national requirements for documentation and filing caused by a digital system not storing automated letters sent to citizens (the Danish Parliamentary Ombudsman, 1997). Much later, in 2014, an investigation showed the use by the tax authorities of inadequately programmed ICT causing incorrect decisions to be directed at citizens (the Danish Parliamentary Ombudsman, 2014). In other words, the administration of the area was unlawful as a direct consequence of the application of faulty ICT. The latter case caused – among other things – a clarification of the two principles of Danish administrative law regulating Digital Government, which are presented in the next section. The first to be presented is the Danish Principle of Administrative Law by Design, and the second is the national requirement for a Good Administration Impact Assessment.

3.2 Administrative law by design and good administration impact assessment

The development of the Danish principles regulating the public authorities' purchasing and use of ICT is connected to, or may even be a consequence of, a fundamental underlying assumption: Administrative law is technology-neutral, unless clearly stated otherwise in relevant legislation. As stated by the Ombudsman, the requirements of Danish administrative law also apply 'when computers replace paper' (the Danish Parliamentary Ombudsman, 2016). In other words, whether tasks are performed and decisions are processed using ICT or not, make no difference to the obligations of a Danish public authority. The requirements of administrative law must be respected, and the responsibility for ensuring this compliance rests with the public body. This basic position has led to several opinions from the Ombudsman during the last two decades, including, among other things, the development of the principle of administrative law by design and the requirement for a good administration impact assessment.

3.2.1 Principle of administrative law by design

The principle of administrative law by design is not new, but has been crystallised in more recent years. It is based on the same line of thought as other kinds of value-based or value-sensitive design, namely a theoretically-grounded, proactive approach to the design of technology, processes and organizations, considering human values in a principled and comprehensive manner. In the present context the term covers an approach to the development of ICT where legislation and unwritten principles of administrative law must be considered during the process of developing, realising, implementation, using, upgrading and replacing (disposing of) ICT. The legal elements are to be embedded in the technology, in the practices and in the organizational structure. Thus, the underlying idea of administrative law by design is to prevent the violation of administrative law due to impetuous choices of design of technologies (Motzfeldt 2017).

As mentioned, the Danish principle of administrative law by design is possible to trace back many years. Two opinions from the Ombudsman illustrate how the office gradually developed this principle.

In 2003 the Ombudsman decided to investigate the Danish Police's administration of collecting fines (The Danish Parliamentary Ombudsman, 2004). The investigation got off to a somewhat unfortunate start for the Police, as the electronic system of records in use was unable to identify the cases to which the Ombudsman wanted access. The difficulty in fulfilling the Ombudsman's request to find specific types of cases made him investigate the record system in question, leading him to state, among other things, that the design of the

system raised fundamental concerns. Just as systematisation of the suspension files and manual registers of old, electronic filing requires the possibility to search for and identify cases and decisions through relatively broad, objective and relevant criteria.

A few years later the Danish Ombudsman's attention was directed towards another system of records, this one used by the University of Copenhagen (The Danish Parliamentary Ombudsman, 2006). This system was used for filing documents in cases relating to SU (a national grant for students), but could only conduct searches of the national identification number of individuals. The university was therefore unable to search for and identify cases and decisions using the above-mentioned broad, objective and relevant criteria. The Ombudsman was particularly critical of the lack of ability to perform searches based on subject categories or related to provisions which had constituted the legal basis for decisions directed at the students. He expressed doubt as to whether the University of Copenhagen could implement a uniform practice with such a system of records, since the office was not able to carry out relevant searches for former decisions. Explicating the underlying reasoning, the Ombudsman explained that a public authority cannot be considered to be respecting the principle of equality, unless the employees of the authority in question are familiar with — or have the opportunity to gain knowledge of — former decisions in a given area. Thus, the design of the system of records hindered the fulfilment of the requirements of administrative law.

As the reviewed cases illustrate, the Danish Ombudsman gradually imposed a duty on liable authorities to ensure that their chosen technologies support administration in compliance with legislation and principles of administrative law. Today this obligation is, among other things, codified in article 1, section 2 of the Danish Access to Public Administration Files Act from 2013, laying down an explicit obligation to consider how to promote the objectives of the Act when public authorities select, establish and develop technologies.

3.2.2 Good administration impact assessment

The intention to design technologies fulfilling the relevant legal requirements may very well be present, but this may not be sufficient to ensure such implementation. As experienced in Denmark, this is particularly true if contracting authorities and developers do not have a detailed overview of the legal challenges associated with developing ICT for public administration in a given area. Therefore, the careful studying, mapping and description of the effects of the introduction of a new technology on the legal environment in question is highly advisable. Strikingly, this process went from being "advisable" to being an outright requirement in 2014, when the Ombudsman faced the challenges of a system named EFI, the acronym for a common debt recovery system used by the tax authorities.

EFI was designed to receive claims from creditors for recovery of debt via a web-based solution. EFI was supposed to partly support the work of case officers in some areas of administration, as well as fully automating some of the area of recoveries. Among other things the system was designed to ease or eliminate virtually all manual administration in relation to withdrawing debt from citizens' salaries without their accept (Hansen, 2011). In sum EFI was a combined decision support and decision-making system handling public recovery and enforcement within the Danish Ministry of Taxation.

The development of EFI was launched in 2006 and the Ombudsman subsequently became aware of the project. The office, on its own initiative, contacted the Ministry and requested information, as well as offering support. Sadly, this preventive effort yielded no results, since the system was put into operation in 2014 without a proper description of either design or functionalities – and the administration within the system violated the specific legislation concerning debt recovery, the Danish Data Protection Act, as well as fundamental requirements of administrative law, such as the right of citizens to be heard before a decision concerning their affairs is taken. The official opinion of the Ombudsman concerning EFI (The Danish Parliamentary Ombudsman, 2014) must be considered to be a milestone, as well as a turning point in the developing national administrative law concerning Digital Government.

First, the Ombudsman stated that before a system is fully or partially put into operation, it must be described how the relevant legal requirements will be observed in the system. He argued that this is due to the fundamental requirement for Digital Government to support the application of and compliance with the relevant legislation and the principles of administrative law, and this can best be ensured by sufficient and early identification of legal issues through the mapping of the relevant regulatory framework. Second, the Ombudsman described the 'requirements for organizing this work' - i.e. the mandatory organization of

development processes. The office laid down several specific requirements. If a public body considers developing ICT to carry out its assigned functions, it should start by creating an overview of the administration in the area. Among other things the body is obliged to map the types of cases and processes occurring in the area in question and perform a rigorous examination of the regulations applying to these mapped cases and processes. Afterwards it must make sure that the design and programming supports compliance with both the mapped legislation and the unwritten principles of administrative law. The Ombudsman even added that it must be considered the duty of the public authority to ensure that the appropriate legal expertise is available in all important phases of a developing process. These phases are spelled out in the opinion with examples such as the preparation of requirement specifications, procurements, tests, etc. (Motzfeldt, 2017).

After introducing this new requirement of a good administration impact assessment, the Ombudsman stressed that the responsibility for compliance with legal requirements lies with the public body using a given technology to perform its duties; regardless of whether this technology is developed for several authorities to use, or whether it is developed by external suppliers. In other words, in the opinion of the Ombudsman, public authorities are responsible for ensuring that Digital Government is compliant with the requirements of the legislation and principles of administrative law within their jurisdiction — and they should act accordingly when technologies are developed.

Thus, the Ombudsman developed the basic principle of proper exercise of authority into a requirement of a good administration impact assessment when the Danish administrative authorities want to develop, buy and use ICT. Today, this requirement is codified, among other things, in the Danish Ministry of Finance's guidance concerning digitalisation and legislation (Kammeradvokaten Poul Smith, 2015).

3.2.3 Summary

The above section outlines the consolidation of two new principles of administrative law by the Danish Parliamentary Ombudsman during the last decade. When public authorities in Denmark buy, develop and/or use ICT, rule of law must be respected (Veit and Hunteburth, 2014). This is the basic line of thinking behind the national requirement of public authorities following a systematic procedure mapping and evaluating the potential impact on the relevant regulation and principles of administrative law. This preliminary investigation is called a good administration impact assessment. At the same time Danish public authorities are bound by the principle of administrative law by design and are therefore also obliged to ensure that ICT intended to be used by the public administration is designed to support the observance of the relevant legislation and principles of administrative law. Seen in context, the underlying logic is rather obvious. An impact assessment must be carried out and the relevant regulation surrounding an envisaged technology must be rigorously examined. After this analysis, the mapped regulation must be considered during the process of developing the technology in question and the technology must be designed to ensure compliance with the described legislation and principles of administrative law. Thus, it is somewhat obvious that ICT should not be used before ensuring that the chosen technology makes it possible to comply with the legal requirements applicable in the area in question. This is the response to the first challenge mentioned in the introduction, namely the lack of consideration of administrative law when implementing new technologies. The second challenge, how to ensure the public authorities remain in charge of the systems in question, and why this even matters, is discussed below.

3.3 The basic principle of delegation

3.3.1 Introduction to the doctrine of delegation

In broad terms, Danish public authorities cannot regulate or in other ways intervene in citizens' affairs unless executive power has been granted by the national legislator; the government and the Parliament jointly. However, if such power is given by the national legislator, it may only be transferred from the said public authority to another organization if the conditions for such transfer (delegation) are met.

An old, fundamental principle of Danish administrative law is that transferral of executive power to private bodies requires specific legislation allowing such delegation. Executive authority is vested in the government in the constitution, not in the private sector. In other words, granted executive power cannot be transferred to private entities without the explicit consent of the legislator, including the democratically elected parliament. For example, private companies in Denmark may not exert influence upon a decision of whether an elderly person qualifies for statutory public care services – unless the legitimacy of transferring such power is clearly

stated in the relevant legislation. However, when it comes to fulfilling the decision, the mere practical matters, the authorities may contract with private companies to perform the necessary tasks without any specific legislation allowing this. Thus, a private company can provide the service (caring) for the elderly citizens *after* the public authority has assessed the eligibility (Revsbech, Nørgaard and Garde, 2014); (Bønsing, 2013).

At the first glance this old doctrine of Danish administrative law does not seem to have any impact on the organization and processes in the Digital Government, nor the manner public authorities sign contracts with private providers of ICT. Nonetheless, in 2016 a debate started among legal scholars in Denmark. This debate focused on whether the national principles of administrative law set limitations for public authorities' use of such providers, when the ICT in question can be categorized as decision support system or a decision-making system (Motzfeldt 2016a, Motzfeldt 2016b, Abkenar 2017 and Loiborg & Søgaard 2018). In the summer of 2017 the Danish Parliamentary Ombudsman unexpected short circuited this academic discourse by publishing an opinion concerning an occurrence of delegation of executive power to a private provider of ICT. Assessing this violated the principles of administrative law, the opinion clarified that the doctrine of delegation applies for contracting suppliers of ICT. However, this opinion concerned neither a decision support system, nor a decision-making system, but a component of digital infrastructure. In other words, transfer of executive power may even take place in the abovementioned first generation of Digital Government, the 'electronic paper'.

3.3.2 The statement of the Danish Parliamentary Ombudsman, 15.06.2017

One of the factors which brings Denmark into the top-10 of the world's most digitised countries is the vastly extended public digital infrastructure promoted by ambitious government programmes (the Danish Agency for Digitisation, 2016). Firstly, public authorities predominantly communicate digitally with each other. Secondly, per the Danish Act on Mandatory Public Digital Mail (2016) all Danish citizens are obliged to use an individual account assigned to them in a public mail system and accept to receive communication from public authorities though this account. This provision applies to everybody, unless they have been given a dispensation because of e.g. severe mental disability.

A component of this massive digital infrastructure is the so-called NemID. All citizens living in Denmark which are considered competent, have been assigned a NemID which works as authentication and signature (the Danish Agency for Digitisation, 2017). However, NemID is not only used for the official public mail system (e-boks). From 2012 and onwards mandatory digital communication though self-service systems was established as well in large parts of Danish public administration. In the areas covered by this legislation citizens are obliged to use public authorities' web-based self-service systems for applications, documentation, reports, etc. Unless they apply for dispensation, citizens are not allowed to contact public authorities through other channels within these areas of administration. Valid reasons for such dispensations are severe disabilities or similar. NemID is used for accessing the vast majority of these public self-service systems.

Mandatory digital self-service is mainly established by four acts from 2012–2015. To list all areas covered by these acts would be too excessive, but we will give a few examples. The first act entails notification of changed residence, application for public day-care, public school, after-school programmes and admission to high schools, universities and other higher education – all areas presumed to be of less importance for the average citizen. The second act extended a little further by providing the legal basis for mandatory digital self-service for complaints about environmental issues, almost the entire area of taxation, et.al. The third act includes a long list of different administrative areas, from building permits to the domestic areas (separation, divorce, child custody, alimony, etc.). Furthermore, a wide range of social services were included. With the fourth act, the digitisation process moved into areas where the number of citizens in a vulnerable situation must be assumed to be relatively high, such as application and submitting information for help related to sick leave, health allowances, a number of family reunification cases and complaints in the healthcare area (Consolidated Acts 1-4).

As indicated, a NemID is required for accessing both the public mail system and the majority of self-service systems in the Danish public administration. Thus, it has become a key factor in the Danish Digital Government. However, NemID existed before the acts of Mandatory Public Digital Mail and digital self-service were adopted. The task of developing and operating NemID was tendered EU-wide in 2008, and a private company called Nets DanID was awarded the task. The contract between Nets DanID and the Danish Agency for Digitisation only requires the issuance of NemID to happen in accordance with an OCES certification policy for personal certificates. There are no contractual clauses about adhering to administrative legislation and

principles of administrative law concerning insight, control, consultative procedure consultation with party/parties involved, e.g. related to rejection of issuing a NemID to a citizen. In addition, there is (still) no legislation regulating NemID (The Danish Parliamentary Ombudsman, 2017).

In 2016, the Danish Parliamentary Ombudsman raised several questions with the responsible authorities (the Danish Agency for Digitisation and the Danish Ministry of Finance). The dialogue resulted in a 32 page densely written opinion from the Danish Parliamentary Ombudsman dated 15.06.2017. One of the issues raised by the Ombudsman was whether, in fact, a transfer of executive power had taken place, since Nets DanID decided whether or not a NemID should be issued to a citizen, and if so, whether such transfer was in accordance with the principles of national administrative law (the doctrine of delegation).

Initially, the authorities responded that there had been no transfer of executive power to Nets DanID, and that the company only provided practical assistance comparable to the above-mentioned caring for elderly citizens. During the following dialogue, however, the Danish Ombudsman pointed out that NemID had evolved from being voluntary and into an integral part of the Digital Government in Denmark. He argued that it is critical for citizens to possess a NemID in order to be able to get in contact with major parts of the public sector. After an exposition of the doctrine of delegation and the applicability at the scenario in question, the dialogue ended with a statement from the responsible authorities. Considering citizens position, and in recognition of NemID being a critical component of the infrastructure allowing access to public service, the authorities acknowledged the need to establish a clear legislative framework of responsibilities and rights in relation to NemID. Subsequently, the authorities promised to initiative a legislative process, thus provide the democratic legitimacy for the construction (the Danish Parliamentary Ombudsman, 2017).

The opinion of NemID and the proceedings show that the old doctrine of delegation has adjusted to the digital era. Depending on the importance and impact of a given technology, the consideration for keeping the executive power under democratic control and secure the public authority in questions control, insight, knowledge, and instructional authority, the mere use of a given technology can be comparable to transferring executive power to a private provider of ICT. Thus, the old requirement of democratic legitimacy stands if digitalisation leads to displacement of power.

The Danish Ombudsman's opinion of 15.06.2017 assesses the use of ICT referred to as 'electronic paper' or first generation of digital administration in section 2. However, the statement clarifies that the Danish doctrine of delegation also applies in the digital era. Thus, the doctrine must be assumed to regulate public authorities pursuance and use of ICT in the second generation of Digital Government as well. The implications of this are analysed below in section 3.3.3.

3.3.3 Analysis of the significance of the doctrine of delegation for the second generation of Digital Government

The underlying idea of a decision support system or a decision-taking system is that citizens' cases must be processed partly or wholly within and by the system. Thereby, logically, the design and programming of the technology in question will influence the processing and outcome of the cases later handled by the system. It may even be argued that the legal status of affected citizens is determined when the programming is completed. For example, compliance with the citizens' rights of access to information will depend on the design and programming of the system. Regarding specific regulation, the outcome of the case will depend on the algorithms which will determine how much the person must pay in taxes, what kind of day-care is assigned, etc.

Naturally, the impact of design and programming is most evident when decision-making systems are used. The Norwegian researcher, Dag Wiese Schartum, describes the development of such technologies as "a separate type of legal decision-making process" which he names "legal system decisions," characterising this development as exercising public authority (Schartum, 2011). Decision support systems may, however, also have an impact, albeit the significance will depend on manual control of the system's calculations, assessments, etc.

The question is, how Danish doctrine of delegation affects Danish public authorities' collaboration with private companies providing decision support and decision-making systems for the public sector? An obvious starting point is to divide the development of such systems into stages. In theory, the above-described Good

Administration Impact Assessment can be separated from the part of actual programming (se section 3.2.2). Provided the programming is based on a thorough and detailed impact assessment and the Public Authority in question has taken full responsibility for this mapping of relevant regulation, programming itself appears to be of lesser importance from a legal perspective. The determination of the citizen's legal status will happen during the impact assessment mapping out the regulation. If the requirement for legal expertise being available throughout the developmental and operational process is complied with as well, no legal issues will be assessed and determined by the programmers. If this condition is fulfilled, programming may legally be considered a technical-practical intermediary connecting the (detailed) abstract interpretation of relevant regulation in the impact assessment with the specific classification happening when the fully programmed system handles specific cases – and there is no transfer of executive power.

However, it appears to be a need for more than just requiring that programming takes place in accordance with a detailed and approved Good Administration Impact Assessment. In another opinion – albeit not in relation to Digital Government – the Danish Ombudsman highlighted that a delegating public body formally and in reality, must "… vouch for the decision that is being made, the case handling and all investigations related to it. This implies among other things that the information provided by a private contractor must be presented to the authority..." (the Danish Parliamentary Ombudsman, 2013). Rethinking this requirement into the context of Digital Government, the focus turns towards the specific technology, its design, and programming. The EFI case is described above in section 3.2.2. - and the investigations following the Ombudsman's opinion on EFI illustrate the problem which may arise, when authorities lack insight into their decisions support and decision-making systems: "There exists no, or only sporadically updated and reliable documentation on how the system actually works. The conclusion is that SKAT does not have a full picture of what specific decisions and actions the system makes when automatically handling individual cases." (Kammeradvokaten Poul Smith, 2015).

It is difficult to see how public authorities formally and in reality can vouch for the perception that administration in accordance with the law can be retained with a public authority, if this authority has neither insight into, nor the possibility of controlling programming forming the decisions made towards citizens. Therefore, from an administrative law perspective, public authorities must retain real insight into and knowledge of the functions of decision support and decision-making systems. If there is no such insight and possibility of control, the system, the doctrine of delegation must be considered violated. In the Danish public administration decisions directed at citizens cannot be generated in a non-transparent and uncontrollable way, only known by private companies proving ICT.

In conclusion, private providers of ICT can be entrusted with the development of decision support and decision making systems on behalf of public authorities, according to the principles of Danish administrative law. However, such outsourcing must be founded on detailed interpretations laid down in a Good Administration Impact Assessment authorized by the Public Authority, which intends to use the technology in question. Furthermore, in order to formally, as well as in reality, vouch for the system's handling of citizens' affairs, insight into the functions of the system and possibility of control must be ensured.

3.3.4 Summary

It is a fundamental and pan-European mindset that constitutions vest the executive power to public bodies. These organizations are to administrate the designated powers with the regulation layed down for their activities. Thus, transferring such powers to organizations not covered by public law is ground for concern. Therefore, as in most European countries, the possibility for transferring executive powers to private organisztions is limited in Denmark due to the unwritten principles of administrative law. Decision-making, coercive power or other activities by which the citizen is impacted substantially can only be transferred to private bodies with the democratically legitimised parliament acceptance by unambiguous legislation allowing the transfer.

Under certain circumstances, for the first generation of Digital Government (electronic paper), this mindset entails a demand for a statutory provision in order to outsource development and utilization of ICT to a private company. This only applies, however, when the technology has an exceptional impact on the citizens. With respect to the second generation of digital administration – decision support and decision making systems – the development of such systems may be tendered to private providers. The outsourcing is contingent upon the programming of each decision-making part of the system being based on detailed interpretations made in

a Good Administration Impact Assessment thoroughly reviewed and approved by the Public authority intending to use the technology in question. Furthermore, in order to formally, as well as in reality vouch for the system, the specific authority must ensure control via contractual provisions allowing full insight into functions of the system.

The above-described adjusting of the old doctrine of delegation might counteract the challenge of lost knowledge of, insight into and control over the technologies used by Public Authorities in Denmark. This is of growing importance, since the technologies in use are of still growing significance as the systems become more and more advanced and are used more extensively.

4. Summary

As described above Denmark has experienced different challenges in relation to the development of Digital Government. Two of these challenges have led to a counter-reaction in which new principles of administrative law have been developed and existing doctrines have been adjusted or reshaped into regulation the use of ICT in the public sector. The first of these challenges is unlawful administration due to deficient and faulty programming, in some cases violating the very core of the rule of law. The legal response in Denmark was the development of the principle of administrative law by design and the requirement for a Good Administration Impact Assessment. The second challenge was the public sector's collaboration with private companies leading to a loss of knowledge, insight and control over the technologies used. The legal counter-reaction to this challenge did not show until the summer of 2017, when the Danish Parliamentary Ombudsman applied the old doctrine of delegation on these collaborations.

A common denominator for the above-described developments is probably the theme of accountability. In more recent years the Danish Parliamentary Ombudsman has several times stressed that the responsibility for lawful administration within a specific jurisdiction always rests with the public body in question. From this perspective, especially combined with the seemingly inevitable digitalisation of the public sector, both reactions are logical next steps to regulate the selection, adaptation and use of ICT by the public authorities, in order to ensure the lawfulness of and democratic control with the future public administration. Since public authorities all over Europe are responsible for ensuring lawful administration within their fields, and the European countries are democracies, the above-described development of Danish administrative law might serve as an inspiration and provide an input for discussing the regulation of public authorities' use of ICT at a European level.

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