

Using artificial intelligence in the public sector

Mapping

October 2023

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1. Introduction

1.1 Background

The development and spread of artificial intelligence has grown exponentially over the past few years and has been the subject of a large number of initiatives and strategies from both Danish and international sources. Perhaps the most significant of these is the European Commission's proposal for a regulation on artificial intelligence, which recognizes the great potential and possibilities of artificial intelligence in a wide range of areas, but at the same time points out that artificial intelligence - depending on the use of the technology - can create risks and harm public interests and rights.

In Denmark, the Danish Institute for Human Rights, among others, points out that the use of artificial intelligence in public administration can lead to special challenges for rights and legal certainty that require special measures aimed at the use of the technology.¹ At the same time, the Danish Institute for Human Rights makes a large number of recommendations to ensure a more rights-based approach to the use of artificial intelligence.

The data protection rules already contain rules that must be complied with when developing and using artificial intelligence. Therefore, following the report from the Danish Institute for Human Rights, the Danish Data Protection Agency set up an internal project group across the agency's business units, which was tasked with taking a closer look at artificial intelligence and data protection in a broad context.

The project group's work should result in:

- Guidance, including templates and paradigms that can be used in the development and use of artificial intelligence solutions. In this way, the Danish Data Protection Agency will attempt to clarify how a large number of the requirements that already apply today to the processing of personal data must be applied in connection with the use of artificial intelligence.
- Mapping the use of artificial intelligence solutions across the public sector so that the Danish Data Protection Agency can eventually follow up on compliance with data protection requirements when artificial intelligence is used. The Danish Data Protection Agency's focus on the public sector in Denmark is due to the amount and type of data processed in the public administration, just as citizens do not have freedom of choice regarding the processing of their personal data by public authorities, as is the case with private companies. Finally, public authorities often perform functions that are of crucial importance to citizens, such as the payment of public benefits and the provision of home and healthcare services.

1.2 Conclusion

The use of artificial intelligence among public authorities is not yet widespread. Among the solutions in use, authorities have made the basic considerations, such as identifying a legal basis for processing personal data, but find it more difficult to comply with the more complex requirements of data protection rules, such as conducting impact assessments.

The survey shows that the use of artificial intelligence is not yet widespread among public authorities. Only about a quarter of the surveyed authorities use at least one AI solution.

Among the solutions used, artificial intelligence is currently primarily used to optimize and streamline "manual" tasks, such as invoicing and mail and record-keeping processes. To the extent that authorities use artificial intelligence, it is standard solutions

¹ Danish Institute for Human Rights, Når algoritmer sagsbehandler - Rettigheder og retssikkerhed i offentlige myndigheders brug af profilingsmodeller, October 2021, <https://menneskeret.dk/udgivelser/naar-algoritmer-sagsbehandler-rettigheder-retssikkerhet-offentlige-myndigheders-brug>

or the same customized solution used by several authorities. At the same time, it is difficult for authorities to identify when a solution should be considered artificial intelligence.

With regard to the processing of personal data, the authorities have predominantly identified a relevant legal basis for processing, which is positive. Processing of personal data is fundamentally not lawful if there is no legal basis for processing in the Data Protection Regulation or other legislation. It is also a requirement under the data protection rules that the authorities must be able to demonstrate that the processing is lawful, i.e. provide the relevant legal basis to the Danish Data Protection Agency. In a number of cases, the authorities have identified a legal basis for processing that - in the opinion of the Danish Data Protection Agency - is not appropriate, just as a number of authorities in individual cases have not been able to point to a legal basis for processing.

In addition, a number of authorities process so-called special categories of personal data, e.g. health data, using artificial intelligence. This suggests that authorities find it difficult to assess whether their use of AI solutions involves the processing of special categories of personal data and, if so, to identify a relevant exception to the prohibition on processing such categories of data.

Finally, the study generally shows that the authorities do not sufficiently comply with the requirement to conduct an impact assessment or the requirement that the impact assessment must be carried out before initiating the processing of personal data.

2. Purpose, method and scope

2.1 Purpose

The purpose of the study was to gain knowledge about how widespread the use of artificial intelligence solutions is among public authorities and what legal considerations the authorities have made in this connection.

First and foremost, the investigation has focused on which solutions, if any, the authorities have used and for what purposes. Secondly, the investigation has covered whether the authorities have identified a legal basis - a so-called legal basis for processing - for processing citizens' personal data using artificial intelligence.

Thirdly, the purpose of the study was to give the Danish Data Protection Agency an insight into the prevalence of artificial intelligence in the public sector and the maturity of the individual authorities with regard to data protection rules. The results of the survey will thus be included as part of the considerations on the Danish Data Protection Agency's future supervisory activities.

Finally, the study has aimed to articulate the points of attention and requirements that follow from the data protection rules when using artificial intelligence. This should be seen in light of the fact that the data protection rules always apply to the processing of personal data. The rules will therefore also apply in parallel with the upcoming regulation on artificial intelligence, which will specifically regulate the use of artificial intelligence.

2.2 Methodology

The survey was conducted as a questionnaire survey, where the Danish Data Protection Agency asked the authorities to answer a number of questions about their (possible) use of AI solutions.

The questions to the authorities were accompanied by a number of help texts. In addition, the authorities had the opportunity to contact the Danish Data Protection Agency in order to clarify how the questions should be understood. The Danish Data Protection Agency was in dialog with the authorities that made the request to clarify doubts, etc. However, not all authorities made use of this option. The authorities' answers are therefore based on their own assessment of the questions.

The framework consisted of two introductory questions accompanied by, among other things, a definition of artificial intelligence. Depending on the answer to these questions, the authorities had to answer a further 14 specific questions. The questions were both qualitative and quantitative in nature and had to be answered by the authorities for each solution used by the authority.² Based on the definition provided, the authority had to assess whether their applied solutions were covered by the survey.

As artificial intelligence is not an unambiguously defined term or concept, the Danish Data Protection Agency took the definition of artificial intelligence as stated in the European Council's general recommendation of December 6, 2022 (draft article 3, no. 1)³ :

"a system that is designed to operate with elements of autonomy and that, based on data and input from machines and/or humans, infers how to achieve a given set of goals using machine learning and/or logical and knowledge-based approaches, and produces system-generated output such as content (generative AI

2 See appendix 1: Questionnaire

3 Council of the European Union, Interinstitutional file 2021/0106(COD), Proposal for a Regulation of the European Parliament and of the Council on harmonized rules on artificial intelligence (Artificial Intelligence Act) and amending certain Union legislative acts - General approach (6 December 2022): <https://data.consilium.europa.eu/doc/document/ST-15698-2022-INIT/en/pdf>

systems), predictions, recommendations or decisions that affect the environments with which the AI system interacts".

The authorities were initially presented with this definition, where they had to answer whether they used artificial intelligence solutions. At the same time, the Danish Data Protection Agency clarified that the definition meant, among other things, that pure Robotic Process Automation (RPA) solutions that are human-configured with a fixed logic are not considered artificial intelligence.

2.3 Delimitation

The survey covered all 98 municipalities, the five regions and all ministries and their agencies and institutions. In total, the survey covered 191 authorities. This means that the survey did not include all authorities that, according to the *Public Administration Act*, can be attributed to the *public administration*, as, in particular, independent institutions that have an operating agreement with a municipality were not included.

Similarly, certain smaller government institutions were not included in the study. With regard to these, the Danish Data Protection Agency has made the delimitation based on a specific and discretionary assessment of which authorities could be expected to use artificial intelligence.

The regions

The Danish Data Protection Agency has not received responses from the five regions on the regions' use of artificial intelligence by the end of the study.

In this connection, the Danish Data Protection Agency has been in dialog with the regions, which state that the regions have a large system landscape that is difficult to map. This is partly due to the unclear definition of artificial intelligence, which is still under negotiation among the EU institutions. The regions have therefore not been able to answer the Danish Data Protection Agency's questions within the deadline.

The regions have therefore - in agreement with the Danish Data Protection Agency - in mid-September 2023 sent an overall description of the areas in which the regions use artificial intelligence. The Danish Data Protection Agency will follow up on this material. However, this means that the regions' use of artificial intelligence is not included in this report.

In addition, the survey was targeted at the authorities' use of artificial intelligence solutions as part of their exercise of public authority. This means that the authorities' possible use of artificial intelligence solutions as part of their role as employers or similar has not been included in the survey.

Finally, the Danish Data Protection Agency notes that it has not made an independent legal assessment of the authorities' responses. All answers are based on the authority's own assessment of the data protection rules.

Possible sources of error

The Danish Data Protection Agency has identified several possible sources of error that may affect the results of the survey. These include, among others:

- Based on the definition provided, the authorities themselves have had to identify and describe the solutions that, in the opinion of the authority, were covered by the study. There may therefore be solutions that should be included in the study, but are not, and vice versa. This may be due to different assessments between authorities as to which solutions should be considered artificial intelligence. It may also be due to a lack of internal overview of which solutions the authority uses in the organization.
- A number of the questions include concepts that the authorities may have assessed differently. This may include the distinction between when an artificial intelligence solution is in training and operation, or what is meant by "vulnerable people", which is a non-exhaustive category of citizens. This may also be the case,

that the authorities have assessed the concept of "personal data" differently and therefore have not described a solution that was in principle covered by the investigation.

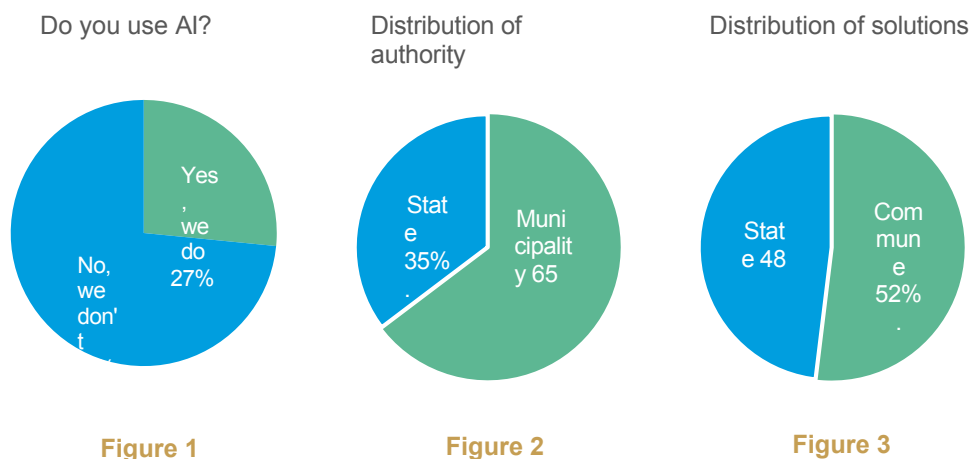
- Finally, the answer to some questions is based on legal assessments, which may have been made differently among the authorities.

3. The use of artificial intelligence by authorities

3.1 The spread of artificial intelligence

In recent years, there have been a number of examples of public authorities using artificial intelligence. One such example is the so-called Gladsaxe model, where Gladsaxe municipality worked to develop a solution that could help track down children at particular risk of vulnerability and unhappiness. Similarly, since 2020, the regions and municipalities have received funding for a number of specially selected projects - the so-called *signature projects* - which aim to test the use of artificial intelligence in the public sector.

The Danish Data Protection Agency's survey shows that 51 of the 191 surveyed authorities use one or more artificial intelligence solutions as part of their exercise of public authority. In addition, the survey shows that the authorities that use AI solutions use a total of 129 AI solutions. This means that each authority uses an average of 2.5 AI solutions as part of their work.



Almost three-quarters of the surveyed authorities do not use AI solutions that process personal data, according to their own assessment. Among the authorities that use at least one AI solution, municipalities make up 65% of these authorities, while state authorities make up the remaining 35% (Figure 2).

The study also shows that while state authorities only make up just over a third of the authorities using AI solutions, it is the state authorities that use the most solutions. State authorities account for 48% of all the solutions covered by the survey (Figure 3), while the other 52% of solutions are used by municipalities. State authorities using AI use an average of 3.4 solutions, while the corresponding average for municipalities is 2 solutions.

Finally, the study shows that authorities have difficulty identifying when a solution constitutes artificial intelligence in whole or in part, e.g. contains artificial intelligence as sub-components.

One example of this is that a number of municipalities have stated that they use the chatbot *MUNI*, which helps citizens with advice and guidance on the municipalities' websites, e.g. by directing citizens to the relevant help texts and forms on the website. Specifically, nine municipalities have stated that they use this solution. According to the Digital Hotline, which is a

inter-municipal community, which provides *MUNI* to the participating municipalities, there are, however, 31 municipalities using the solution.⁴

3.2 Scope of application

As part of the survey, the authorities were asked to describe the purposes for which they use AI. Based on these descriptions, the Danish Data Protection Agency has identified a number of common purposes and categorized the solutions into six different categories and a summary category.

Solution category	Local authority	Stat	Total
Invoicing and purchasing	12	0	12
Control and supervision activities	1	40	41
Logistics	7	0	7
Mail and journaling processes	9	2	11
Practical support for case management	13	11	24
Guidance on the website, by phone, etc.	11	2	13
Others	14	7	21
Total	67	62	129

The table shows the distribution of the AI solutions used by the authorities across the different categories. The authorities themselves have not answered which category the solutions should be assigned to. The categorization has been made by the Danish Data Protection Agency as part of the post-processing of the data basis.

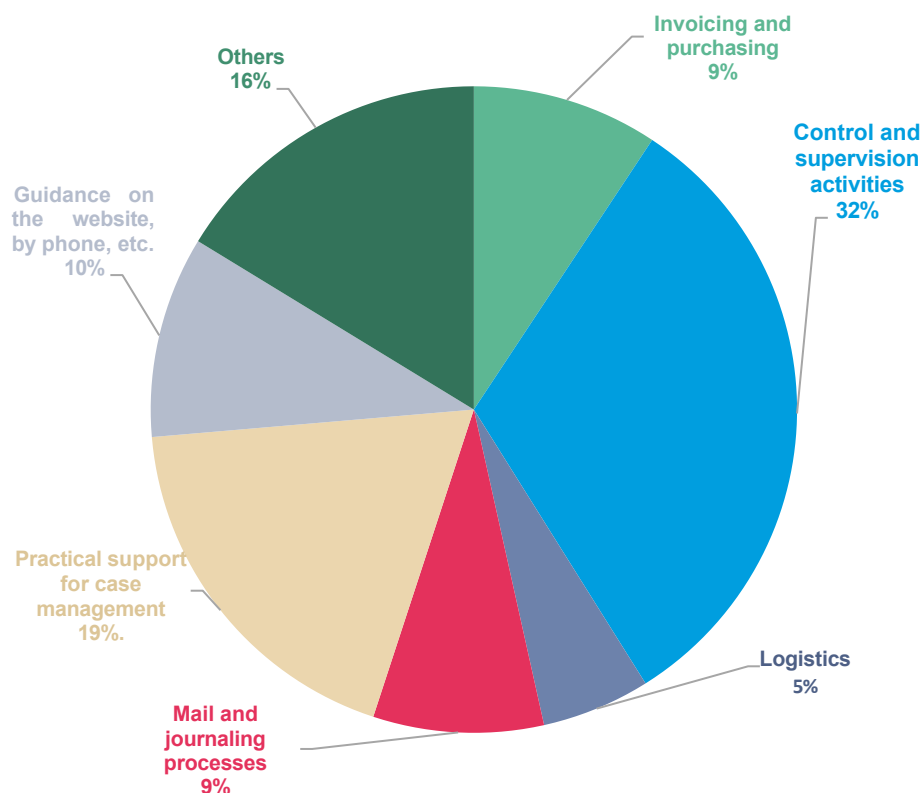


Figure 4

The study shows that the use of artificial intelligence among public authorities is widely used to solve manual and time-consuming tasks such as invoice processing,

4 The Digital Community, Member Municipalities: <https://dendigitalehotline.dk/velkommen-til-ddh/ddh-medlemskommuner/>

sorting of mail and journaling, as well as practical support for case management such as practice search and anonymization in access to documents. Solutions used for such purposes account for 37% of all solutions used. In addition, authorities use just over a third of all AI solutions for control and supervision purposes.

Categories of solutions

As mentioned, the Danish Data Protection Agency has made an estimated categorization of the solutions that the authorities have stated that they use. The description of what lies behind the individual categories can be found below.

Invoicing and purchasing

A number of municipalities use different types of standard software based on or supported by AI to manage invoices. The solutions ensure automatic posting of received and paid invoices to facilitate the municipality's manual work. In this context, the solutions process any personal data that appears on the invoices.

Control and supervision activities

One of the types of tasks that AI solutions are particularly well suited to solving is finding anomalies. AI solutions are therefore used by government authorities such as Ud- payment Denmark and the Tax Administration to control and prevent fraud in the payment of social benefits and taxes. In addition, other authorities that have a supervisory obligation in other areas use AI solutions to identify citizens or companies that should be selected for closer inspection.

Logistics

In particular, the category covers the use of solutions by municipalities to optimize municipal fleet management and driving patterns. See below on "FleetOptimiser" for a more detailed description.

Mail and journaling processes

Receiving and handling written correspondence is a regular task for most public authorities. Today, authorities spend a lot of resources on receiving, sorting and logging incoming mail and emails. Some authorities have adopted AI solutions to solve this task. Some solutions can ensure that relevant inquiries are immediately forwarded to the right internal mailbox, while other solutions can sort and log incoming inquiries. This can help ensure that citizens' cases are processed faster, that misdirected mail is delivered correctly and that documents are logged in a timely manner.

Practical support for case management

The category covers a number of different AI tools that collectively support the authorities' case management.

This includes solutions that can find past practices within a specific case category to support caseworkers in making consistent and correct decisions. The category also includes tools that assist caseworkers with anonymizing documents when handling access requests. Finally, the

the category includes a few specialized solutions that assist in solving specific government tasks, such as document analysis.

In the opinion of the Danish Data Protection Agency, solutions that *practically* support case processing do not include solutions that generate decision proposals for decisions or otherwise handle case processing.

Guidance on the website, by phone, etc.

Authorities have an obligation to provide guidance to citizens. This is done by phone and via the authority's website(s). In this context, some authorities have, for example, implemented AI solutions as part of the authority's telephone service. The solutions can answer and forward calls so that citizens can get in touch with the relevant department or employee faster. At the same time, the solutions allow citizens to get answers to simple questions around the clock. In addition, a number of authorities have implemented chatbots based on AI on the authority's website. The chatbot can help citizens get answers to common questions and point them to the right information on the authority's website.

Others

Some of the solutions used by the authorities do not fall into any of the above categories. These include, for example, individual solutions that prepare decision proposals as part of case processing⁵, or solutions used for statistics production.

At the same time, the study shows that there are some differences across municipalities and states in terms of the purposes for which the solutions are used.

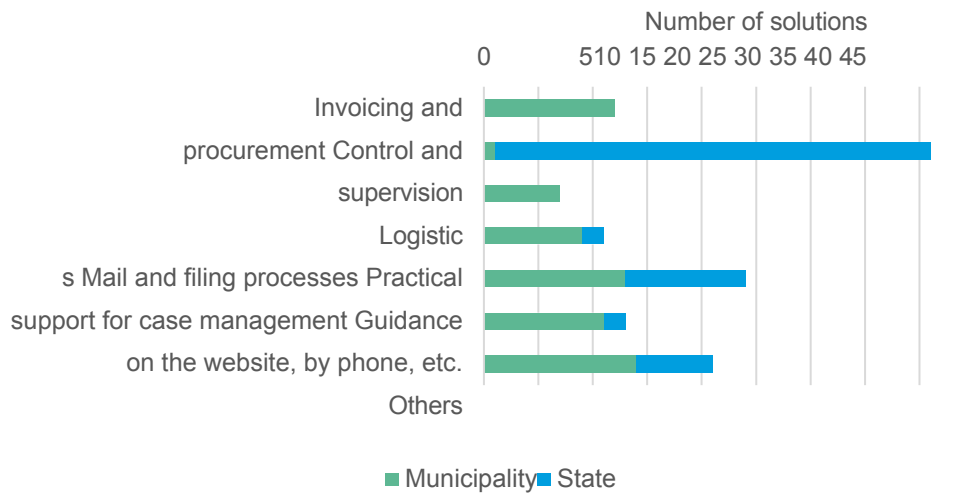


Figure 5

This means that it is primarily government authorities that use AI solutions as part of their control and supervision activities. Specifically, the Danish Tax Administration and Udbetaling Danmark account for 83 % of the total number of solutions used for control and monitoring purposes.

⁵ See, for example, the signature projects "Artificial intelligence to support visitation of rehabilitation programs" and "Faster case processing when granting body-worn aids", both of which are described in more detail here: <https://digst.dk/digital-transformation/signaturprojekter/>

Udbetaling Danmark

Udbetaling Danmark, which is a public authority under ATP, pays out social benefits, financial subsidies and schemes on behalf of the public sector to Danish citizens every year, including family benefits, housing benefits and pensions. This entails an obligation to check that payments are made correctly - both in relation to incorrect payments and any fraud.

Therefore, Udbetaling Danmark has a data-driven set-up that makes use of artificial intelligence, which makes it possible to more accurately check whether benefit and wage earners are receiving the correct benefits. Udbetaling Danmark's *Shared Data Unit* was established following the agreement on the municipalities' finances for 2015 and the entry into force of new rules in the Act on Udbetaling Danmark in May 2015.

Tax administration

The general task of the tax administration is to ensure that citizens and businesses pay the correct taxes and duties on time.

As part of this task, the Tax Administration uses systems that, for example, make it easier to perform risk-based checks. Statistical analyses provide the Tax Administration's caseworkers with a prioritized and risk-based list of who it is statistically most appropriate to check. The authority can thus quickly and efficiently identify the citizens and businesses that, based on the existing patterns in the data, are most likely to circumvent the rules, just as it is possible to identify the citizens and businesses that are most at risk of committing errors.

On the other hand, it is predominantly municipalities that use AI solutions to support their mail and record-keeping processes, and it is only municipalities that use AI for invoicing, procurement and logistical purposes.

The study shows that municipalities in particular share the same AI solutions as part of their task management in a large number of the above-mentioned categories. An example of this is the FleetOptimiser solution, which accounts for 6 of the 7 solutions used in the "Logistics" category.

FleetOptimiser

Some of the municipalities' public authority tasks, which consist of providing services to citizens, involve transportation of various kinds, for example in connection with elderly care. Transportation involves driving many kilometers, spending a lot of time and at the same time has a climate impact through CO2 emissions.

Based on the signature project "Intelligent fleet management and climate-smart driving patterns"⁶, a number of municipalities have developed the FleetOptimiser solution.

The solution uses optimization algorithms based on artificial intelligence and analyzes location data to optimize economy and climate impact by improving driving patterns, routes and the allocation of vehicles to trips.

⁶ Read more about signature projects with artificial intelligence in municipalities and regions on the Danish Agency for Digitization's website: <https://digst.dk/digital-transformation/signaturprojekter/>

The solution allows you to test different fleet compositions and get suggestions for an optimal fleet composition based on different parameters. For example, maximum CO2 reduction, economic considerations or greater use of bicycles.⁷

In particular, the solution processes location information about data subjects. The vehicles are monitored via GPS, which can be linked to, among other things, the municipal employees driving the vehicle.

Another category where municipalities are largely using the same AI solutions is "Invoicing and Procurement". Here, the municipalities use standard software to automate their invoice management. The solutions primarily process information about accounting matters, and only personal data that may - more or less randomly - appear on invoices etc. is processed.

In addition, the survey also shows that authorities are using AI solutions to streamline and improve their mail and record-keeping processes. All of the solutions used in this category are solutions that sort and distribute incoming mail. Of the 11 solutions used across the authorities, 6 of the solutions are an implementation of "SmartMail", which is also one of the so-called signature projects.

SmartMail

The project aims to disseminate a solution that can help reduce case processing time for citizens and at the same time ensure transparency in case processing in municipalities by optimizing mail and journaling processes.

Today, municipalities spend a lot of resources on receiving, sorting and logging incoming mail and emails. Many municipalities have established various distribution systems and rule-based logic to optimize these processes. However, there is still potential to make these processes more intelligent and automated. This can help ensure that citizens' cases are processed faster, that misdirected mail is delivered correctly and that documents are logged in a timely manner.

With the use of artificial intelligence, mail and emails from citizens and businesses can be delivered to the right recipient the first time and logged faster, resulting in shorter case processing times for the benefit of citizens. Employees will also spend less time on filing and more time concentrating on professional tasks. For municipalities, this will lead to resource savings in mail and journal functions.⁸

Comments from the Danish Data Protection Agency

The study paints a picture of certain trends in the use of AI by public authorities:

⁷ For more information, please refer to Aarhus Municipality's project page on FleetOptimiser: <https://fleetoptimiser.aarhus.dk/>

⁸ The text is an excerpt from the project descriptions of SmartMail 1 and 2 from the Danish Agency for Digitization's website: <https://digst.dk/di-gital-transformation/signaturprojekter/>

- The use of AI is not yet widespread. Currently, AI is primarily used to optimize and streamline "manual" tasks, such as faxing, mailing and record-keeping processes.
- Authorities, especially municipalities, widely use standard software or solutions developed across multiple municipalities (and possibly subsequently rolled out to additional municipalities).

Finally, the study indicates that authorities may have difficulty identifying when a solution should be considered artificial intelligence.

3.3 Treatment basis

3.3.1 Personal data

Any processing of personal data requires a legal basis.⁹ The authorities have therefore also been asked to answer whether they have identified a legal basis in the data protection rules or elsewhere for the authorities' processing of personal data in the AI solutions used.

In the opinion of the Danish Data Protection Agency, the development and operation of AI solutions are two separate activities. The authorities have therefore been asked to answer whether they have identified a basis for processing for the development and operation of the solutions, respectively.

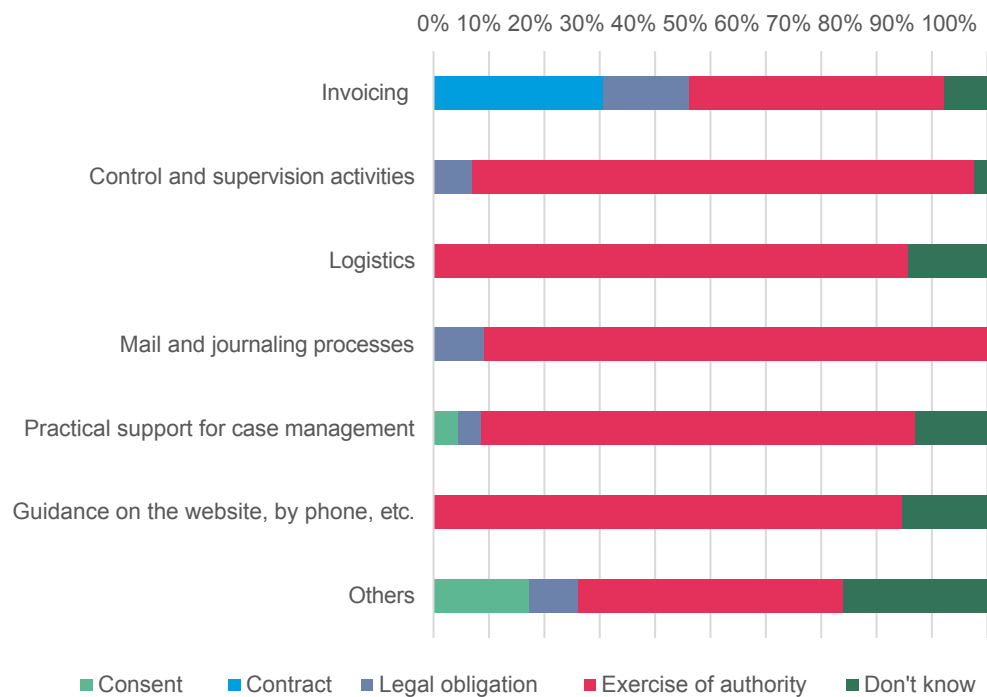


Figure 6

The survey shows that the vast majority of the authorities have assessed that the processing of personal data in the development and operation of AI solutions is part of their exercise of public authority.

⁹ Read more about "When can you process personal data?" on the Danish Data Protection Agency's website: <https://www.datatilsynet.dk/hvad-siger-reglerne/grundlaeggende-begejgre/hvornaar-maa-du-behandle-personoplysninger>

A minority have pointed out that they do not know the legal basis for the processing of personal data. Similarly, a few authorities have pointed out that personal data are processed on the basis of a legal obligation and have, for example, referred to the Public Administration Act as the legal obligation to which the authority is subject. Finally, a few other authorities have stated that the processing is necessary to fulfill a contract with the data subject.

Comments from the Danish Data Protection Agency

In the opinion of the Danish Data Protection Agency, it is generally positive that the majority of the authorities have identified that their processing of personal data takes place as part of their exercise of public authority.

However, the study still gives reason to highlight:

- Authorities must identify a legal basis. Processing of personal data is fundamentally not lawful if there is no legal basis for processing in the GDPR or other legislation. It is also a requirement under the data protection rules that authorities must be able to demonstrate that the processing is lawful, i.e. provide the relevant legal basis for processing to the Danish Data Protection Agency.
- Authorities are rarely subject to legal obligations with regard to the processing of personal data. A large number of the legal obligations to which authorities are subject do not constitute a legal obligation to process personal data in the sense of the data protection rules. This applies, among other things, to the Administrative Procedure Act's provisions on the obligation to take notes and keep records. These rules contain such a large discretionary power for the authorities that the rules cannot be said to be a specific legal obligation to process specific types of personal data.¹⁰
- The authorities' legal basis for processing is also rarely "for the performance of a contract". This is because this legal basis presupposes that there is a contract with the data subject, i.e. the citizen. This would not be the case if the municipality, in order to provide, for example, a hearing aid to a citizen as part of its municipal obligations, pays an invoice from the supplier of the hearing aid. Although the citizen is the recipient of the service, the citizen is not a contractual party in the relationship between the supplier and the municipality.

3.3.2 Special categories of personal data

Certain categories of personal data are considered particularly worthy of protection under the data protection rules. It is therefore generally prohibited to process data on racial or ethnic origin, political opinions, religious or philosophical beliefs, professional affiliations, genetic data, biometric data for the purpose of unambiguous identification, data concerning health, and data concerning sexual relations or sexual orientation.

However, there are a number of exceptions to the general prohibition against processing such data. As part of the survey, the authorities have therefore also been asked to answer whether they have identified such an exception if they process special categories of personal data.

¹⁰ For more information, see section 5.2.1 in the Danish Data Protection Agency's guidelines on the use of artificial intelligence by public authorities.

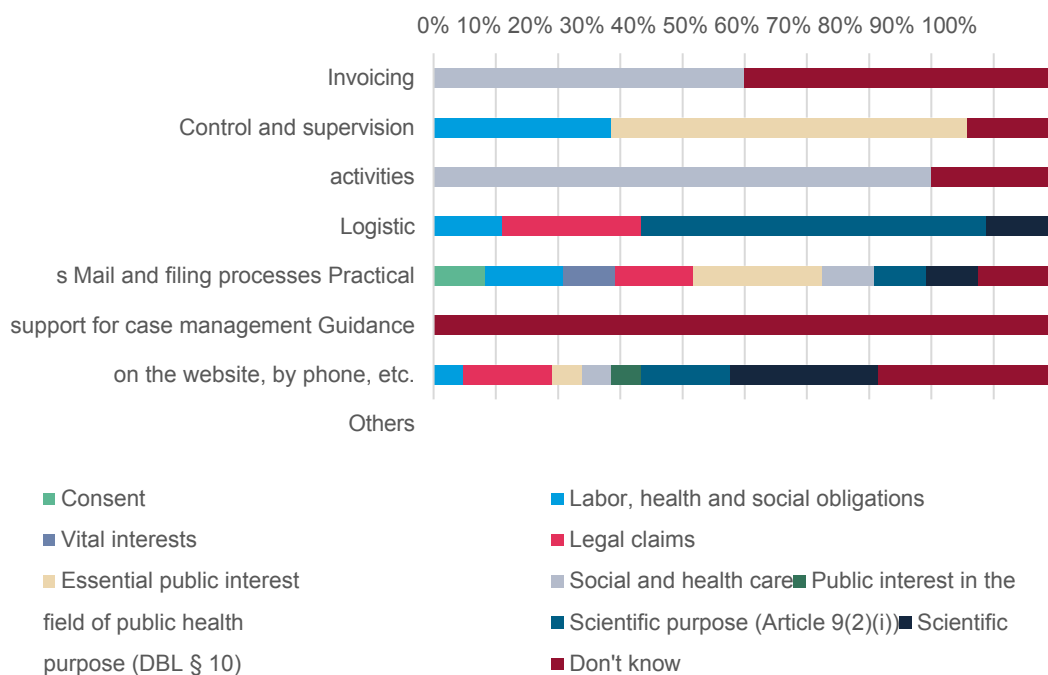


Figure 7

Figure 7 shows, in the opinion of the Danish Data Protection Agency, that the authorities have more difficulty identifying the relevant exception in the GDPR that makes it possible to process special categories of personal data.

Comments from the Danish Data Protection Agency

The study indicates that public authorities may find it difficult to assess whether their use of AI solutions involves the processing of special categories of personal data and, if so, to identify a relevant exception to the prohibition on processing such categories of data.

There is a not insignificant variation in the assessment among the authorities that otherwise responded that they use the same AI solutions, including, for example, in the categories of invoicing, logistics and website guidance.

In the opinion of the Danish Data Protection Agency, this may be due to:

- that authorities have difficulty assessing when information falls into *special categories of information*, and/or
- which exception in the data protection rules is applicable.

Against this background, the Danish Data Protection Agency will investigate how it can clarify these issues.

3.4 Impact assessment

Where the processing of personal data is likely to result in a high risk to the rights and freedoms of natural persons, a data protection impact assessment shall be carried out prior to the processing.

A DPIA is a tool that enables the authority to address the risks that a processing activity may entail in a systematic way. The impact assessment must include:

- a description of the processing of personal data,

- an assessment of the necessity and proportionality of the processing; and
- addressing the risks to citizens' rights and freedoms posed by the processing of personal data.

It is the opinion of the Danish Data Protection Agency that the processing of personal data as part of the development and/or operation of AI solutions will almost always trigger several of the criteria that determine whether an impact assessment must be carried out. This is because:

- AI is considered a so-called "emerging technology", which is one of the criteria in the Danish Data Protection Agency's list of activities that are always subject to the requirement for an impact assessment¹¹, and
- that the development and/or operation of AI often involves (i) processing of special categories of data, (ii) processing of data of vulnerable persons, or (iii) processing of personal data on a large scale, which are three other criteria listed in the WP29 Impact Assessment Guidelines.¹²

Therefore, the authorities have also been asked to answer to what extent they have conducted an impact assessment related to their use of AI solutions and when in the process of implementing the solution in question they have conducted the impact assessment.

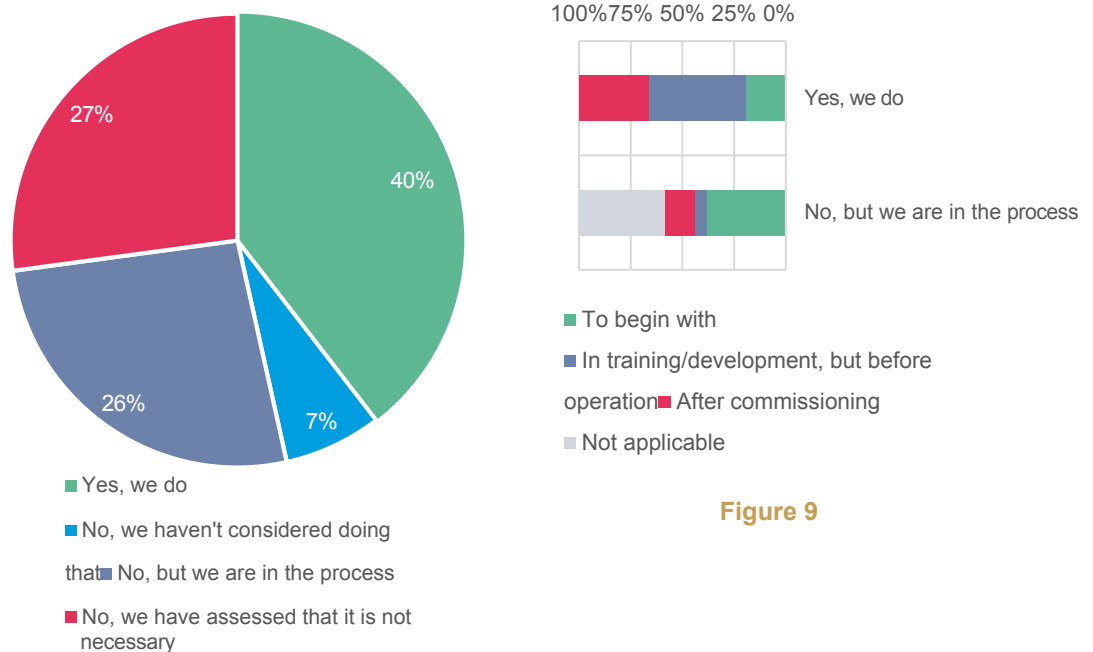


Figure 8

The survey shows that authorities have conducted an impact assessment for 40% of all solutions, and that authorities are still in the process of conducting impact assessments for just over a quarter (26%) of all solutions. This means that the authorities have not conducted an impact assessment for 34% of all solutions.

Figure 9 shows when in the process the authorities who answered either "Yes" or "No, but we are in the process" have prepared the impact assessment. This shows that for 80% of all solutions, the authorities have only completed an impact assessment after they have initiated the processing activity, and for 34 of the solutions, the authorities are still in the process of completing the analysis. Thus, overall, the authorities have not completed the analysis in a timely manner for 88% of the solutions where the authorities themselves have assessed that it is necessary.

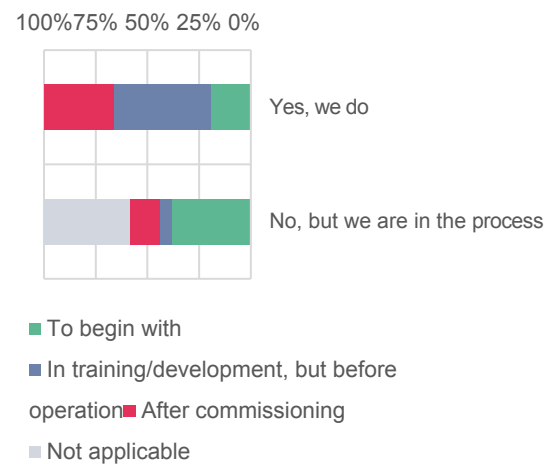


Figure 9

¹¹ The list drawn up by the Danish Data Protection Agency pursuant to Article 35(4) of the General Data Protection Regulation can be found [here](#).

12 WP29 Guidelines on Data Protection Impact Assessment (DPIA) and determining whether the processing operation is 'likely to present a high risk' under Regulation (EU) 2016/679, WP248.

The authorities have also answered which types of personal data they process using AI solutions, how many citizens are involved and whether citizens can be said to be so-called vulnerable persons¹³.

When this information is compared to the number of authorities that have not carried out an impact assessment, the study shows that 32 of the 44 authorities that have not considered carrying out an impact assessment or have assessed that it is not necessary, fulfill at least one additional of the criteria that determine whether the requirement to carry out an impact assessment is triggered. In other words, 73% of the authorities that have not carried out an impact assessment have actually been obliged by the data protection rules to carry out an impact assessment.

Comments from the Danish Data Protection Agency

The study shows that the authorities do not sufficiently comply with the requirement to conduct an impact assessment or the requirement that the impact assessment must be carried out before the treatment is initiated.

The Danish Data Protection Agency therefore insists:

- that authorities should pay special attention to the fact that an impact assessment must (almost) always be carried out when developing and/or operating AI solutions, and
- that the impact assessment must be conducted prior to the processing of personal data, i.e. before the development of the AI solution in question is initiated.

Based on the investigation, the Danish Data Protection Agency will enter into a dialog with the authorities about the reasons for their failure to carry out impact assessments.

¹³ The Danish Data Protection Agency understands vulnerable persons to include children, the elderly, patients and other similar groups of people who may be particularly at risk in relation to the processing of their personal data.

Appendix 1: Questionnaire

- 1) Do you use AI solutions as part of the authority's task management?
 - a. Yes, we do
 - b. No, we don't

- 2) How many AI solutions do you use?
 - a. 0-30

- 3) Enter a title for the AI solution

- 4) Briefly describe your AI solution, including the purpose of using the solution

- 5) Specify the number of people for whom data is processed using the AI solution for the training phase, i.e. before commissioning
 - a. 0 persons / No personal data
 - b. Fewer than 1,000 people
 - c. 1,000-10,000 people
 - d. More than 10,000 people
 - e. Not applicable / Don't know

- 6) Specify the number of people for whom data is processed in the AI solution for the commissioning phase, i.e. after the training phase
 - a. 0 persons / No personal data
 - b. Fewer than 1,000 people
 - c. 1,000-10,000 people
 - d. More than 10,000 people
 - e. Not applicable / Don't know

- 7) What categories of personal data are processed in the AI solution for the training phase, i.e. before commissioning?
 - a. Contact information
 - b. Location data
 - c. Significant social problems
 - d. Economic conditions
 - e. Education and training
 - f. Employment/working conditions
 - g. Race and/or ethnicity
 - h. Political beliefs
 - i. Religious or philosophical beliefs
 - j. Trade union affiliation
 - k. Genetic and/or biometric personal data
 - l. Health information
 - m. Sexual relationships and/or orientation
 - n. Personal number
 - o. Criminal offenses
 - p. Personal data other than the above categories

- 8) What categories of personal data are processed in the AI solution as far as the commissioning phase is concerned, i.e. after the training phase?
 - a. Contact information
 - b. Location data
 - c. Significant social problems
 - d. Economic conditions
 - e. Education and training

- f. Employment/working conditions
 - g. Race and/or ethnicity
 - h. Political beliefs
 - i. Religious or philosophical beliefs
 - j. Trade union affiliation
 - k. Genetic and/or biometric personal data
 - l. Health information
 - m. Sexual relationships and/or orientation
 - n. Personal number
 - o. Criminal offenses
 - p. Personal data other than the above categories
- 9) What legal basis have you identified for the processing of personal data in the AI solution with regard to the training phase, i.e. before commissioning?
- a. Article 6(1)(a) (consent)
 - b. Article 6(1)(b) (contract)
 - c. Article 6(1)(c) (legal obligation)
 - d. Article 6(1)(d) (vital interests)
 - e. Article 6(1)(e) (exercise of public authority)
 - f. Article 6(1)(f) (balancing of interests)
 - g. Article 9(2)(a) (consent)
 - h. Article 9(2)(b) (obligations in the field of labor, health and social law)
 - i. Article 9(2)(c) (vital interests)
 - j. Article 9(2)(d) (non-profit)
 - k. Article 9(2)(e) (published by the data subject himself)
 - l. Article 9(2)(f) (legal claims)
 - m. Article 9(2)(g) (essential public interest)
 - n. Article 9(2)(h) (social and health care)
 - o. Article 9(2)(i) (public interest in the field of public health)
 - p. Article 9(2)(j) (scientific purposes)
 - q. Section 8 of the Data Protection Act (criminal offenses)
 - r. Section 10 of the Data Protection Act (scientific purposes)
 - s. Section 11 of the Data Protection Act (social security number)
 - t. Don't know
- 10) Additional legal basis if your legal basis for processing is Article 6(1)(e) or Article 9(2)(b), (g), (h), (i) or (j) of the GDPR.
- 11) What legal basis have you identified for the processing of personal data in the AI solution for the operational phase, i.e. after the training phase?
- a. Article 6(1)(a) (consent)
 - b. Article 6(1)(b) (contract)
 - c. Article 6(1)(c) (legal obligation)
 - d. Article 6(1)(d) (vital interests)
 - e. Article 6(1)(e) (exercise of public authority)
 - f. Article 6(1)(f) (balancing of interests)
 - g. Article 9(2)(a) (consent)
 - h. Article 9(2)(b) (obligations in the field of labor, health and social law)
 - i. Article 9(2)(c) (vital interests)
 - j. Article 9(2)(d) (non-profit)
 - k. Article 9(2)(e) (published by the data subject himself)
 - l. Article 9(2)(f) (legal claims)
 - m. Article 9(2)(g) (essential public interest)
 - n. Article 9(2)(h) (social and health care)
 - o. Article 9(2)(i) (public interest in the field of public health)
 - p. Article 9(2)(j) (scientific purposes)
 - q. Section 8 of the Data Protection Act (criminal offenses)
 - r. Section 10 of the Data Protection Act (scientific purposes)

- s. Section 11 of the Data Protection Act (social security number)
 - t. Don't know
- 12) Additional legal basis if your legal basis for processing is Article 6(1)(e) or Article 9(2)(b), (g), (h), (i) or (j) of the GDPR.
- 13) Do you process information about vulnerable people using the AI solution?
- a. Yes, we do
 - b. No, we don't
 - c. Don't know
- 14) How is the AI solution used?
- a. Decision support for citizens
 - b. Decision support in terms of organization, resource allocation, etc.
 - c. Automatic decisions for citizens
 - d. Automatic decisions about organization, resource allocation, etc.
 - e. Neither of these
- 15) Have you conducted an impact assessment of the AI solution?
- a. Yes, we do
 - b. No, but we are in the process
 - c. No, we have assessed that it is not necessary
 - d. No, we haven't considered doing that
 - e. Don't know
- 16) When in the process did you conduct the impact assessment?
- a. Initially, i.e. at the beginning of the process and before the training/development of the solution started
 - b. During the training/development phase, but before commissioning the solution
 - c. After commissioning the solution
 - d. Not applicable
- 17) Who developed the AI solution?
- a. The authority itself
 - b. In collaboration with others
 - c. Others only
- 18) Have you assessed the division of roles and responsibilities if the AI solution is developed in collaboration with one or more external suppliers?

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