Sweden

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1.   What is the understanding or definition of AI in your jurisdiction?

There is currently no statutory definition of the term 'artificial intelligence' (AI) in Sweden. Neither is there a clear-cut or generally agreed upon definition of the term.[149] However, some guidance on the understanding of AI in Sweden may be found in government documents and voluntary industry codes.

In a 2018 report on AI in Swedish business and society, Vinnova – the Swedish Government agency for innovation – described AI as follows: 'In this analysis, artificial intelligence is defined as the ability of a machine to imitate intelligent human behaviour. Artificial intelligence also denotes the area of science and technology that aims to study, understand and develop computers and software with intelligent behaviour'.[150]

The definition of AI used in the Vinnova report provides two important insights into what AI is and how it is often understood in Sweden. The first insight is that, at its core, AI is computer software. The second is that AI refers to the area of science and technology related to machines imitating intelligent behaviour, often with human intelligence as a reference point.

In its national approach to AI, the Swedish Government refers to the definition of AI in the Vinnova report.[151] The government further adds that 'AI is a broad field that encompasses many technologies, not least machine learning and deep learning. What distinguishes AI from other automation methods is the ability of AI technology to learn and become smarter over time'.[152]

The Swedish Government's national approach to AI provides two further insights into how AI is often understood in Sweden. The first insight is that, in most cases when referring to AI, most people refer to machine learning and deep learning technology. Machine learning and deep learning are subsets of AI research and technology. However, these technologies currently hold the most potential for developing complex AI systems and solutions. The second insight is that AI is usually understood to be technology that, on its own, learns and becomes smarter over time. This is done through exposing the AI to more data and by letting it attempt to solve the problems it was programmed to complete.

Finally, many discussions concerning AI in Sweden centre on ethics and trust. The discussions essentially come down to one question: how can we create AI that does the right thing and does not cause harm? What this indicates is that AI is viewed as a powerful, and potentially game-changing, technology, but that it may be dangerous if it ends up in the wrong hands or if it is left to its own devices.

2.   In your jurisdiction, besides legal tech tools (ie, law firm or claim management, data platforms, etc), are there already actual AI tools or use cases in practice for legal services?

Actual AI tools are used in Sweden in a manner similar to other jurisdictions. Legal AI tools are used by a number of organisations in practice. We can identify two main categories of tools that are currently being used. The first one is tools that are used for document review/due diligence and the second category is proofreading of documents and other similar technologies.

The first category consists of a number of internationally marketed legal services, such as Luminance, Kira and RAVN, which provide support for users in identifying trends and concepts in large sets of documents. The services can be used for due diligence processes and other use cases where the review of documents is required.

The second category, which contains services such as Contract Companion and the Swedish service Donna, includes functions to proofread the style and format of contract documents, often as plug-ins to programs such as Microsoft Word.

Even though it is common that actors in Sweden use some legal AI technology, litigation software based on AI is used to a much more limited extent than in, for instance, the United States. One plausible explanation could be the difference in the common law system in the US and the differences in the nature of litigation processes.

Besides Donna, there are additional examples of AI tools developed in Sweden, both by law firms and independent Legal Tech providers, sometimes in cooperation. In a few cases, there are also examples of the in-house legal development of Legal Tech, one example being a tool for reviewing data processing agreements under the General Data Protection Regulation (GDPR).

3.   If yes, are these AI tools different regarding
**   • independent law firms;**
**   • international law firms; and**
**   • in-house counsels;**
**   and what are these differences?**

The main variation between how different actors in Sweden use AI tools is based on their respective capacity in acquiring legal AI services. Large international law firms are, as a main rule, the only actors that are able to develop their own legal AI services, and have done so internationally and implemented such services in Sweden as well.

Several off-the-shelf products are more widely available, for instance, the examples provided under question 2. Such AI products are widely in use by large and medium-sized Swedish law firms (all large and medium-sized law firms asked had invested in AI according to a survey conducted by the Swedish Bar Association's magazine last year).

With smaller actors and law firms, the use of AI technology is more unusual, although there are exceptions and niche use cases where even smaller law firms have developed their own AI technology.

For in-house legal counsel there are a few off-the-shelf products available, as well as a few examples of in-house developments, such as the example provided under question 2. However, the general AI maturity of in-house legal departments seems to be somewhat lower than at large Swedish law firms.

The authors' understanding is that AI technology is limited to certain specific use cases in general among all legal actors in Sweden, and not widely used within the scope of any organisation's core business.

4. What is the current or planned regulatory approach on AI in general?

The current/planned regulatory approach related to AI is still not very clearly defined in Sweden, although work is being done. The Swedish Government has set out several general goals in its national approach to AI. The general ambition is for Sweden to be a leading country in exploiting the benefits of AI, both through strengthened welfare and increased competitiveness.[153] Sweden has the ambition to become world leading in AI technology, and one ambition is for the legislative tempo to be increased and unnecessary regulatory obstacles that prevent digitalisation to be removed.[154]

An area of importance, as indicated by the Swedish Government and other actors, is the creation and adherence to ethical principles for developing and using AI technology, for instance, the guidelines issued by the European Union High-Level Expert Group on Artificial Intelligence (AI HLEG). Furthermore, specific Swedish

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153 Government of Sweden, *National Approach To Artificial Intelligence* (2018), see www.government.se/491fa7/ contentassets/fe2ba005fb49433587574c513a837fac/national-approach-to-artificial-intelligence.pdf accessed 6 July 2020.

154 Government of Sweden, *Hur Sverige blir bäst i världen på att använda digitaliseringens möjligheter - en skrivelse om politikens inriktning*, Skr. 2017/18:47, 2017, pp 19–20, see www.regeringen.se/rattsliga-dokument/ skrivelse/2017/11/skr.-20171847 accessed 6 July 2020.

guidelines have been issued by some stakeholders, for instance, the Swedish IT and telecoms interest organisation (IT & Telekomföretagen).

Another area of importance that has been identified is the question regarding access and ownership of data, as will be further outlined below. Currently, a number of investigations are assessing how data will be more accessible, for instance, to research, including data from public agencies. Central principles for this work will be to ensure the quality of data, protection from faults and manipulation, and to comply with the privacy rights of individuals.

It should also be added that a lot of the planned regulatory approach for AI in Sweden is coordinated within the framework of the EU, led by the European Commission, to increase harmonisation within the EU and also to increase competitiveness in relation to the rest of the world.[155] The Swedish Government has expressed the ambition that Sweden should have a high-level of competence and participate actively in the regulatory discussion regarding AI at the EU level.

In mapping the view on regulation among stakeholders, a concern raised is that it is unclear how current rules apply for the use of AI technology, particularly sector-specific legislation.[156] That could be, for instance, with regard to data protection and the specific rules for healthcare, where there are limitations on the purposes for which personal data can be processed.

To summarise, it is of central priority for the Swedish legislator to assess current legislation from an AI perspective and implement necessary changes. Furthermore, support in the interpretation of legislation is required from courts and public authorities. Access to data, information security and robustness, together with the ethical use of AI, are principles of central importance in the future regulatory approach.

5. Which are the current or planned regulations on the general use of AI or machine learning systems?

Introduction

There are currently no AI laws in Sweden. Historically, the legislative approach in Sweden has been to pass technology-agnostic legislation that does not need to

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155 European Commission, *White Paper on Artificial Intelligence: A European Approach to Excellence and Trust* (2020), see https://ec.europa.eu/info/strategy/priorities-2019-2024/europe-fit-digital-age/excellence-trust-artificial-intelligence accessed 6 July 2020.

156 Agency for Digital Government (Myndigheten för digital förvaltning or 'DIGG'), *Främja den offentliga förvaltningens förmåga att använda AI*, I2019/01416/DF, pp 29–30, see www.digg.se/publicerat/publikationer/2020/framja-den-offentliga-forvaltningens-formaga-att-anvanda-ai accessed 6 July 2020.

be changed with every advance in technology. As a result, existing legislation can, in many cases, be applied to AI or machine learning systems. However, existing legislation is, in some cases, ill-suited for dealing with the unique challenges brought by AI. In some cases, existing legislation has been updated to better deal with the challenges brought by AI.

There are four areas of legislation of primary relevance to AI: torts and liability, intellectual property rights, data protection and privacy, and automated decision-making. It is important to note that AI does not have legal capacity in Sweden (ie, electronic personhood), meaning that the natural and legal persons behind the AI carry all relevant rights and responsibilities related to the AI.

Torts and liability

The primary Swedish legislation governing liability in tort (non-contractual liability) is the Tort Liability Act (Skadeståndslagen). The Tort Liability Act is applicable when a party has suffered injury or damage caused by AI caused by another party's negligent or intentional acts. Further, there must be a causal link between the negligent act and the injury or damage.[157] However, because AI cannot be held liable under Swedish law, claims for damages must be directed towards the people behind the AI, for example, the programmer, the user or the person responsible for training the AI. Due to the autonomous nature of AI, as well as the black box problem, it may be difficult to establish negligence and a causal link between the actions of the people behind the AI and the injury or damage.

A tortfeasor may be held liable also on other grounds, primarily strict liability, if there is support for such liability in other legislation. This is the case, for instance, for damages caused by defective products under the Product Liability Act (Produktansvarslagen). In most cases, AI technology falls outside the scope of the Product Liability Act because software is not a product under Swedish law. However, if the AI is embedded in a product, the Product Liability Act may be applicable to the product.

Intellectual property rights

Three main issues are relevant to the protection of intellectual property rights (IPR) related to AI: protection of data and input, protection of the AI itself, and protection of results and AI-generated works. The primary IPR legislation of relevance in relation to AI is the Copyright Act (Upphovsrättslagen). However, other legislation, such as the Patent Act (Patentlagen) and the Trade Secrets

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157 The legal assessment here may be complicated, but it is essentially a requirement of foreseeability.

Act (Lag om företagshemligheter) may, in some cases, also be relevant. Due to the difficulties in protecting IPR-related to AI, companies and organisations may choose to protect them as confidential information and trade secrets.

The main rule in Sweden is that data, such as industrial or transaction data, is not eligible for copyright protection under Swedish law. However, if data is organised into a database, the database as a whole may be eligible for protection under the Copyright Act. Protecting AI technology under the current copyright framework also poses significant challenges. The Copyright Act protects the AI's code and algorithms, but provides no protection for the idea or concept behind the AI – meaning that anyone can create similar AI using a different code or algorithms. Finally, works autonomously created by AI are not eligible for copyright protection under the Copyright Act. However, where humans and AI collaborate in the creative process, AI generated works may be eligible for copyright protection.

Data protection and privacy

The primary legislation governing data protection in Sweden is the GDPR.[158] The GDPR is complemented by the Swedish Data Protection Act (Lag med kompletterande bestämmelser till EU:s dataskyddsförordning) and sector-specific regulations, such as the Patient Data Act (Patientdatalagen). Training and using AI requires large quantities of data. Where that data is personal data, the need to use large quantities of data comes into conflict with the GDPR, and compliance with legislation must be observed.

Automated decision-making

The main legislation that governs automated decision-making under Swedish law is the GDPR. Under GDPR, Article 22, data subjects have the right not to be subject to a decision based solely on automated processing, including profiling, which produces legal effects. GDPR, Article 22, paragraph 2 contains some exceptions to the main rule, including, for instance, that automated decision-making is permitted when it is authorised by EU or Member State law, which also lays down suitable measures to safeguard the rights of data subjects.

Following the reform of the Administrative Procedures Act (Förvaltningslagen), Swedish public authorities are permitted to use automated decision-making when making decisions. The change was made to permit automated decisions, with the ambition to make public authorities compliant with GDPR, Article 22.

Planned legislation and legislative initiatives

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158 Regulation (EU) 2016/679 of the European Parliament and of the Council of 27 April 2016 on the protection of natural persons with regard to the processing of personal data and on the free movement of such data, and repealing Directive 95/46/EC (General Data Protection Regulation).

The majority of legislative initiatives and planned regulations concerning the use of AI and machine learning in Sweden come from the EU. The Swedish Government is currently working on implementing the Digital Single Market (DSM) Directive[159] and the Open Data Directive[160] into Swedish law, which will potentially improve free data access in Sweden (see further question 6).

In 2017, the Swedish Government adopted an ordinance permitting the trial of autonomous vehicles on public roads. A year later, the government released its official government report on autonomous vehicles.[161] The report contains, inter alia, discussions on introducing a new definition for the term 'driver', regulating the obligations and responsibilities of drivers and owners of autonomous vehicles, as well as discussions on introducing new crimes, such as 'gross negligence during automated driving on roads'. To date, the report has not resulted in any new legislation.

6. Is free data access an issue in relation with AI?

Yes, free data access is an issue in relation with AI. Training and using AI requires large quantities of data. One of the main issues preventing free access to data is that there is, as a general rule, little to no IPR protection for data, meaning that data is free to use for anybody with access to the data (see question 5). Many companies therefore try to protect the data as confidential information and as a trade secret in order to maintain a competitive advantage.

Most legislative initiatives to improve free data access have come from the EU. These legislative initiatives include the Regulation on a framework for the free flow of non-personal data in the EU,[162] the Open Data Directive, the DSM Directive and Payments Services Directive (PSD2).[163] The European Commission's data strategy may provide further insights into planned future legislative initiatives from the EU.[164]

Improving access to data in relation to AI is of importance to the Swedish Government. In its national approach to AI, the Swedish Government states that: 'Access to data is the lifeblood of AI and a crucial part of the infrastructure. … Appropriate frameworks of principles, norms, standards and rules are therefore

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159 Directive (EU) 2019/790 of the European Parliament and of the Council of 17 April 2019 on copyright and related rights in the Digital Single Market and amending Directives 96/9/EC and 2001/29/EC.

160 Directive (EU) 2019/1024 of the European Parliament and of the Council of 20 June 2019 on open data and the re-use of public sector information.

161 Swedish Government Official Reports (SOU) 2018:16, *Vägen till självkörande fordon – introduktion, see* www.regeringen.se/rattsliga-dokument/statens-offentliga-utredningar/2018/03/vagen-till-sjalvkorande-fordon---introduktion accessed 6 July 2020.

162 Regulation (EU) 2018/1807 of the European Parliament and of the Council of 14 November 2018 on a framework for the free flow of non-personal data in the European Union.

163 Directive (EU) 2015/2366 of the European Parliament and of the Council of 25 November 2015 on payment services in the internal market, amending Directives 2002/65/EC, 2009/110/EC and 2013/36/EU and Regulation (EU) No 1093/2010, and repealing Directive 2007/64/EC.

164 European Commission, *A European strategy for data, 2020*, https://ec.europa.eu/info/sites/info/files/communication-european-strategy-data-19feb2020_en.pdf accessed 6 July 2020.

important prerequisites if Sweden is to realise the benefits of AI in society. Such frameworks must balance fundamental needs for privacy, ethics, trust and social protection with access to the data needed to realise the potential of AI'.[165]

As mentioned above, the Swedish Government is currently planning the implementation of the Open Data Directive, which will hopefully improve free access to data in relation to AI. In May 2019, the Swedish Government launched three separate investigations on improving access to public sector data, inter alia, for the purpose of improving access to open data in relation to AI.[166] Once the investigations have been concluded, the Swedish Government will propose a bill on the implementation of the Open Data Directive.

7. Are there already actual court decisions on the provision of legal services using AI or decisions concerning other sectors that might be applicable to the use of AI in the provision of legal services?

To the best of the authors' knowledge, there are not yet any legal cases in Sweden regarding the provision of legal services or other sectors of relevance related to the use of AI.

It should be added that there are few limitations on how legal services can be provided in Sweden, with actors not admitted to, or acting under the supervision of, the Swedish Bar Association. Actors are generally free to provide legal advice and services, including with the help of technology, with potential legal disputes expected to be ruled by the normal civil law legislation related to contracts and torts.

8. What is the current status – planned, discussed or implemented – of the sectorial legislation in your jurisdiction on the use of AI in the legal profession or services that are traditionally being rendered by lawyers?

As mentioned above, on the whole, there are few regulatory limitations in Sweden with regards to the provision of legal services. What is regulated is, generally, the procedures of court and the lawyers practising under the supervision of the Swedish Bar Association (membership of which, with a few exceptions, is not

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165 Government of Sweden, *National approach to artificial intelligence* (2018), see www.government.se/491fa7/contentassets/fe2ba005fb49433587574c513a837fac/national-approach-to-artificial-intelligence.pdf accessed 6 July 2020.

166 The Swedish Government's press release (in Swedish) regarding the three investigations, available at www.regeringen.se/pressmeddelanden/2019/05/regeringen-kraftsamlar-kring-artificiell-intelligens-och-oppna-data accessed 6 July 2020.

compulsory for the provision of legal services in Sweden). What could be expected is an oversight of the Swedish procedural legislation for courts in conjunction with the possibility to use AI technology in Swedish courts. A governmental inquiry has already been made into public authorities' use of AI for making legally binding decisions and how the legislation should be adapted.[167]

9. What is the role of the national bar organisations or other official professional institutions?

The Swedish Bar Association has yet to give recommendations specifically on the use of AI technology. The association has, however, discussed questions regarding AI in its monthly magazine *Advokaten* in issue number 4 from 2019.[168] The association did not make any recommendations in the magazine for lawyers acting under the bar.

Of related significance are the guidelines on how lawyers under the bar can use external IT services,[169] which may have an impact on the use of AI since many Swedish law firms use off-the-shelf products that often are provided as cloud services. A question of importance, for instance, is the storage of confidential information related to clients, where adequate protection must be ensured both from a regulatory and technical perspective. This is especially the case where information is stored in countries other than Sweden, as could be the case when Legal Tech service providers are being used by a lawyer/law firm.

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167 Swedish Government Official Reports (SOU) 2018:25 – *Juridik som stöd för förvaltningens digitalisering* www. regeringen.se/rattsliga-dokument/statens-offentliga-utredningar/2018/03/sou-201825 accessed 6 July 2020.

168 See www.advokaten.se/Tidningsnummer/2019/nr-4-2019-argang-85 accessed 6 July 2020.

169 Swedish Bar Association (Advokatsamfundet), *Uppdaterad vögledning om användningen av externa IT-tjänster i advokatverksamhet* (2019) www.advokatsamfundet.se/Nyhetsarkiv/2019/april/uppdaterad-vagledning-om-externa-it-tjanster-vid-advokatverksamhet accessed 6 July 2020.