

Artificial Intelligence in the judicial system

Maintaining the independency of the judiciary power in the development, implementation, and use of artificial intelligence.

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1 Introduction

The idea of separation of power and the independent judiciary is not a recent one. As far back as antiquity the historian Polybius described the idea of checks and balances between the powers of the state.¹ This notion would take root and become an ideal to aspire towards, with philosophers such as Montesquieu introducing the tripartite system², dividing the government into three branches, which has withstood till modern days. Whilst the ideal of these powers maintaining full checks and balances is not necessarily fully maintained, as the principle of popular sovereignty can often take precedence. Resulting in nations where the legislative power is constitutionally superior to the others, but the ideal is still something that is strived towards. Thus, when countries attempt to weaken the independency of either power, it can cause both domestic and international backlash. Such was the case in Poland when the executive power through reforms lowered the retirement age on judges. Some saw this as a move to replace a large number of judges with those loyal to the government, leading to eventual reversal after the European Court of Justice ruled the reforms contrary to EU law.³

1.1 Scope

To uphold its ability to perform checks and balances and maintain a degree of separation of power, an essential aspect is the independency of the judiciary. In this paper I will be discussing how the development, implementation, and use of artificial intelligence (AI) systems, within the justice sector, may threaten the independency of the judiciary power. To identify these potential threats towards judicial independence, I will first provide an overview and outlook of the current approaches towards AI systems in the European Union (EU) and Norway, as these areas will be the focus of my paper. I will therefore begin by first identifying the current approaches towards AI systems within the EU and Norway. This will then transition to an observation of an assortment of present implementations of AI systems that are used within the justice sector. Followed by an overview of the ‘European Vision’ based upon relevant documents detailing the EU’s ambitions on AI systems and the approaches identified in the previous chapter. Afterwards I will view the advantages of AI systems, particularly for the justice sector, to identify the motivation for developing, implementing, and utilizing, these systems. With these established parameters, I will shift focus to the main topic of this paper. The following chapters and sections will therefore centre around the legal requirements for AI systems, focusing on legal AI systems (AI systems used in the legal sector), the identification of threats towards judicial independence, the identification of the source or sources of this threat, and possible

¹ Lloyd (1998), introduction third paragraph

² Montesquieu (1777), Book XII, first chapter, second paragraph

³ Case C-619/18, European Commission v Republic of Poland

solutions. I will limit my focus to the use of AI systems within the justice sector as a tool, to provide assistance with administrative tasks, aid in research, help interpret facts, and to some degree assist in the decision-making process. I will not be focusing on the idea of replacing judges with AI systems. It is my opinion that this is an important discussion, but not one likely to be established in the near future in the areas of focus in this paper. More than brief inclusions of the matter could potentially shift too much focus away from the matter of AI assistant tools which is my central focus.⁴

The methodology used to identify these threats to judicial independence will rely heavily on legal interpretation of relevant legal instruments, focusing heavily on the newly proposed regulation known as the AI Act proposal⁵. To assist in my interpretation of these legal texts and to identify potential issues they fail to regulate or actively help contribute towards, I will rely on legal research in the field. This legal research will mainly be papers and articles. Due to the fact that the AI Act proposal is only about a year old, there are few books written on that topic. Current examples of development, implementation, and utilization will be presented, and throughout the paper it will where relevant be used as empirical evidence. Highlighting how certain concerns surrounding e.g., the AI Act, in how its requirements are formulated, and what requirements it puts forth, can already be found in currently implemented AI systems, further stressing the notion that these regulatory shortcomings must be dealt with through amendments made to the AI Act, or further regulations centred around the issue. Because this is an emerging technology, and the most relevant piece of regulation is still in the stage of proposal, there are few legal judgements that can be used. Most issues relevant to legal AI systems have yet to reach any relevant courts and produce judgements that we paper can utilize. Accordingly, this paper will rely on only a limited number of judicial decisions in support of its analysis and arguments.

1.2 Keywords

Keywords of this paper are European Union, judicial independence, judiciary power, artificial intelligence, AI regulation, Artificial Intelligence Act / AIA / AI Act, high-risk AI, legal sector, justice sector, Norway.

⁴ For papers focusing more on the matter of replacing human judges with AI judges I would direct to papers such as Chief Justice Robots, and Artificial Intelligence, Legal Change, and Separation of Powers. Written by E. Volokh and A. Michaels respectively.

⁵ AI Act, (Proposal for a Regulation of the European Parliament and of the Council laying down harmonised rules on Artificial Intelligence (Artificial Intelligence Act) and amending certain Union legislative acts, Brussels, 21.4.2021, COM(2021) 206 final.)

For clarification I will define some of the more nebulous terms to clarify how I will be using them in this paper.

1.2.1 Artificial Intelligence

Both the terms artificial intelligence (AI) and AI system are nebulous. For the sake of this paper, when discussing artificial intelligence, I will be using the definition of AI as defined by the AI Act proposed by the European Union, focusing mainly on letter (a) and (b) in Annex I, meaning machine learning and logic- and knowledge-based approaches. It should be noted that this creates a very broad definition, especially if one were to include letter (c) as well, to the degree one might find it difficult to think of programs that do not fall into either of these categories. I will not go into detail or try to establish some further defined definition of artificial intelligence, nor will I be providing a further explanation of what machine learning or logic- and knowledge-based approaches are. More details can be found in Annex I, but as this paper focuses on the legal question, and not the technical question, of how to maintain judiciary independence during the development, implementation, and utilization of artificial intelligence, further knowledge is not meant to be required to understand this paper. With the term AI defined I will merely note that AI system is meant to refer to any system utilizing AI, meaning any program, algorithm, or any other form of system devised, where AI as defined by Annex I in the AI Act, is used.

1.2.2 The judiciary power and judicial independence

This paper is meant to answer the question of how the judiciary power can maintain its independence, in the wake of the introduction of artificial intelligence in the justice system, a clarification is required on what exactly the judiciary power is in context of this paper, and what judiciary independence is. By the judiciary power I am referring to the judicial branch and the system of courts that functions as a key institution in the interpretation and application, and in some instances, the creation of the law. It is the body responsible for upholding the legal system, separated from the executive and legislative power. By judicial independence I refer to this institution's independence in its interpretation and application of the law, and its ability to check the other powers of state. Critically, the judiciary must maintain its independence from the executive and legislative power, as well as private businesses, organizations, foundations, and any other external entity interested in attaining a degree of control over the judiciary power, to influence its decisions.

2 The new industrial revolution

Since ancient Greece,⁶ the concept of artificial intelligence has been fiction and not reality. This fiction has now become reality, and artificial intelligence has gone from a future concept to an existing new industrial revolution⁷, dubbed by some the fourth industrial revolution⁸. This industrial revolution is currently taking place within the judicial system, with the development and usage of systems such as Correctional Offender Management Profiling for Alternative Sanctions (COMPAS), or within law enforcement with the Harm Assessment Risk Tool (HART), respectively taking place in the United States and the United Kingdom.

This new industrial revolution brings with it entirely new legal difficulties and challenges to core fundamentals of modern society, as machines are no longer set to just perform tasks replacing physical labour, but also make decisions based on the intelligence given to them by their programming. Replacing mental labour and replacing humans in the role of decision-making. To handle these new legal difficulties multiple organizations and legal systems are debating the issues, publishing papers, and proposing legislations, aiming to tackle the issues brought up to debate. Amongst these the AI Act proposal is one of the most ambitious and encompassing legislative documents and could serve as an indicator of the direction the European Union is outlining for its members to follow regarding the correct approach to AI systems in its member states. Resulting in the Brussels effect^{9 10 11}.

2.1 How to approach artificial intelligence

In the issue of how to implement artificial intelligence and the risks and legislative issues they could potentially pose, there are multiple approaches that legislators can undertake. Which raises the question of how one should approach artificial intelligence. This question has no clear and concise answer, as there is an extensive number of variables depending on the sector being discussed, the degree of implementation, and the type of artificial intelligence, etc. But the discussion surrounding the question can provide insight and at least propose some potential approaches, especially as one narrows in on specific sectors, specific forms of implementation, and types of artificial intelligence, etc. I will therefore first list some of the already proposed approaches, then an overview of what approach the European Union and Norway seem to be taking if this is possible to be ascertained, and then view if this could be suitable for the judiciary power.

⁶ Shashkevich (2019)

⁷ Thomas (2020)

⁸ Chakraborty et al. (2022)

⁹ Bradford (2012)

¹⁰ Bradford (2015)

¹¹ Bradford (2020)

2.1.1 Ways to approach

Some of the approaches that we are seeing proposed in Europe is for example the risk-based approach of the European Union with the AI Act, whilst another is a more targeted sector approach¹² detailed by the Council of Bars and Law Societies of Europe (CCBE). These are not necessarily exclusive of the other, and there is always the possibility that legislation could utilize a hybrid approach, but deciding on a specific approach might offer more of an identity to the legislation.

2.1.1.1 Risk-based approach

The risk-based approach is one way of handling the legislation of AI systems. An example of this approach is the AI Act proposal. This involves a legal framework based around proportionality, where regulatory burdens are imposed relative to the risk the AI system is estimated to have. In this risk-based approach there are less extensive details that discuss legal requirements involving specific sectors, instead certain sectors get associated with risk groups. This approach is highly relevant to this paper due to it being the approach chosen by the AI Act proposal. The most relevant source of information when looking at current regulation for developing, implementing, and utilizing AI systems.

2.1.1.1.1 The AI Act

Proposed on the 21st of April 2021, the regulation is the result of several years of extensive work by the EU to develop a framework for AI systems within the Union based around its ideals and allowing for harmonisation between member states on the AI issue. It is a continuation of the White Paper on AI¹³, published by the commission a year earlier. In the White Paper on AI two main ‘building blocks’ are detailed: an ‘ecosystem of excellence’ and an ‘ecosystem of trust’.

Of these two building blocks the AI Act proposal aims to function as a legal framework to achieve the creation of the second building block, establishing an ‘ecosystem of trust’.¹⁴

This basis of establishing trust is a core concept of the proposal, and the proposal clarifies that AI is therefore meant to be ‘human centric’.¹⁵ An expression mentioned once in the explanatory memorandum, and never explained nor repeated again for the entirety of the AI Act. In addition,

¹² CCBE (2020)

¹³ White Paper (2020)

¹⁴ AI Act 1.1 p. 1

¹⁵ AI Act 1.1 p. 1

it is never mentioned in the White Paper on AI, which the AI Act proposal can be considered a continuation of. Thus, the explanatory memorandum seems to put a lot of weight on the importance of AI being ‘human centric’, but it never expands upon what constitutes a human centric AI. Could a human-centric regulation allow AI systems that replace human jobs? Could a human-centric regulation support the full digitalization of entire industries, or even institutions? I will address these questions in 3.2.1.1.

One important aspect of the risk-based approach, and thus the AI Act for the purpose of this paper, is its definition of high-risk AI and the requirements for an AI system to fall under this classification. Detailed explanation is found in the AI Act proposal under section 5.2.3 named High-risk AI systems (Title III). Here it is detailed how there are two main categories of high-risk AI systems, for the purpose of this paper it is the second category that is of relevance. AI systems with mainly fundamental rights implications that are explicitly listed in Annex III. This is due to how Annex III point 8 lists ‘Administration of justice and democratic processes’ as a high-risk area, with point 8(a) detailing that all AI systems “...intended to assist a judicial authority in researching and interpreting facts and the law and in applying the law to a concrete set of facts.” are to be considered automatically high-risk. As such any AI system that falls under point 8(a) will be put under further requirements than other lower risk AI systems. As this paper focuses on the use of AI systems within the judiciary system, which would fall under ‘Administration of justice and democratic processes’, the majority of potential AI system development, implementation, and utilization, should be expected to be considered high-risk under the risk-based approach, in accordance with the AI Act proposal. It is important to note that Annex III point 8 does not necessitate that all AI systems developed for or utilized by anyone or anything that constitutes the administration of justice and democratic processes are high-risk systems, as point 8(a) brings forth certain requirements in intention and use of the system. It is rather unclear actually to what extent this should be read, and the exact wording can be problematic in multiple ways.

This question does not currently have a definitive answer, as its ambiguity has yet to be brought into question in such a manner that an answer can be provided. There are research papers however which discuss the matter. In the paper by the name ‘Legal AI Systems in the EU’s proposed Artificial Intelligence Act’¹⁶, Schwemer, Tomada, and Pasini, look at this exact question. Section 3.1 of this paper looks at the positive and negative scope of Annex III point 8(a), and remarks how both Annex III point 8(a) and Art. 7(2)(a) appear to emphasise *intended purpose* instead of *expected use*. This means that the provider of the AI system gets to decide if the system is automatically high-risk or not, based on who they *intend* as their users. Thus, if they solely advertise to the private sector, and not the judicial sector, regardless of whether the

¹⁶ Schwemer, Tomada, Pasini, (2021)

system is popular amongst judges, it will still be considered low-risk. Furthermore, there is the part of “researching and interpreting facts and the law”, which as written would appear to mean the AI system is required to both research *and* interpret, and this must be on both facts *and* law. Which upon reading seem an immensely narrow width of AI systems, especially when considering how broad the AI Act proposal is in a lot of other areas as mentioned earlier. In their paper Schwemer, Tomada, and Pasini propose that one may utilize a teleological interpretation of recital 40 to adopt a broader reading. The intention is to classify AI systems that could potentially have a ‘significant impact on democracy, rule of law, and individual freedoms as well as the right to an effective remedy and to a fair trial’, in addition to addressing ‘the risks of potential biases, errors and opacity’.

Furthermore, whilst recital 40 might offer a teleological interpretation to broaden the otherwise immensely narrow scope, it also narrows it further in another area by highlighting how these requirements, or qualifications to be considered a high-risk AI system in the justice sector, *should* not extend to AI systems *intended* for purely ancillary administrative activities that do not affect the actual administration of justice in individual cases. This specific point is something that will be touched upon later again in this paper in section 3.1.4.

As such, whilst AI systems are defined very broadly in the AI Act, the same cannot be said for what is considered high-risk legal AI systems, which unless subject to a very lenient interpretation based solely on teleological interpretation, appear to be quite narrow. A lot relies instead on self-regulation with an emphasis of *intended purpose*. In combination of Article 73 and Article 7 of the AI Act proposal, the Commission is granted the ability to update the list in Annex III. To do this there are two requirements that must be fulfilled, listed in Article 7 point 1(ab). Point 1(a) simply requires it be intended for use in any of the areas listed in points 1 to 8 of Annex III, automatically being fulfilled by any legal AI system intended for administration of justice and democratic processes. The second requirement in point 1(b) sets forth a requirement that essentially reads that the AI system must also pose an equivalent or greater risk to key aspects than the high-risk AI systems already referred to in Annex III. Due to the wording of Annex III point 8(a) it will be interesting to note how much room this leaves open for the Commission in this area, as the literal wording of it is so narrow that legal AI systems that do all those cumulative conditions could easily be argued as more high-risk than most AI systems the Commission might want to later add onto the list.

Ultimately though on the matter of legal AI it appears that regulating the judicial sector would not appear to be a strong focus of the AI Act. A brief look at the specific objectives¹⁷ gives some insight on the matter, as they are broader objectives, focusing on facilitating investment

¹⁷ AI Act 1.1 p. 3

and innovation, whilst also ensuring AI systems within the Union market meets certain criteria to be safe and respect existing law on fundamental rights and Union values. It is, however, still a significant and notable regulation, even in the field of legal AI. The definition of AI systems is so broad that it is highly likely to encompass all AI systems one might use within the legal system. As the AI Act proposal is meant to facilitate the development of a single market for such AI and prevent market fragmentation, it seems to intentionally leave this definition so broad that no AI systems can find its way outside of it, creating a secondary AI market unregulated by the AI Act. But on the topic of high-risk legal AI systems the AI Act proposal appears so narrow in Annex III point 8, that unless expanded upon or the introduction of a separate more targeted regulation, most legal AI systems that will initially be developed and implemented, seem unlikely to be subjected to regular requirements, and not those posed upon high-risk AI. Relying more on self-regulation, particularly from AI systems developed by private entities intended only for private practitioners, excluding it from the term ‘judicial authority’, as written in Annex III point 8(a).

2.1.1.2 Sector-based approach

The sector-based approach differs from the risk-based approach by shifting the focus from the risks of the AI system to the needs of the sector in which it is intended to be used. Both approaches might agree on steeper requirements for the AI system due to which sector it is in, but from different outsets. The risk-based approach looks at the risk due to the sector and as such might classify it as high-risk, whilst the sector-based approach looks at the sector, formulates steep requirements due to how that sector functions, and then imposes them upon the AI system. An example of the sector-based approach being voiced there is the response by the CCBE.

2.1.1.2.1 CCBE Response to the consultation on the European Commission’s White paper on Artificial Intelligence

In the CCBE Response to the consultation on the European Commission’s White Paper on Artificial Intelligence the Council of Bars and Law Societies of Europe previously referenced, they voiced certain concerns about how “...the questionnaire has not been tailored to specific sectors and use cases and does not offer respondents the opportunity to indicate per question from which perspective the reply is given.”. Instead of the risk-based approach the CCBE calls for a more targeted or sector-based approach, at least as an alternative. Certain sectors will have very specific needs, and as the CCBE puts it, require tailored legal requirements.

The first section of the CCBE Response is about the ‘ecosystem of excellence’. As noted earlier, this was an issue mentioned in the White Paper, but not built upon in the AI Act proposal. As the CCBE Response is not a regulation built upon as a continuation of parts of the White Paper

such as the AI Act proposal, but rather a response, it maintains both the ‘ecosystem of trust’ and ‘ecosystem of excellence’ issues. The first section is rather short compared to the second section though, mainly focusing on the role of *sectoral regulators*, which would include the CCBE, as they define it as including bars and law societies. Highlighting how they are best positioned to both “understand and address the training needs”. On the topic of the sector-based approach this is more expanded upon in the next section of the response.

Under section 2 of the paper, detailing ‘an ecosystem of trust’ the CCBE highlights the weaknesses of the risk-based approach, addressing why a regulation containing more of a sector-based approach will be needed for the justice sector. It details how the risk-based approach with its ‘high-risk’ and ‘low-risk’ categorising of AI systems will not be sufficient, “too simplistic and will lead to structurally defective regulation”. It details how levels of risk can vary widely within the same sector, which requires a very targeted approach. The symptoms of this could be seen in section 2.1.1.1.1 of this paper when the AI Act was presented, how the extent of what qualifies as high-risk and what is not comes off as unclear unless one adopts an immensely narrow interpretation. Highlighting how the ‘high-risk’ or ‘low-risk’ approach in the justice sector ends up either categorising nearly everything as one or the other, unless one provides very specific requirements of what constitutes one, and what constitutes the other. Clearly the one sentence provided in Annex III point 8(a) is not sufficient in providing clear expectations to developers and providers of what their AI system will come to be classified as.

The CCBE instead calls for what they consider a more ‘targeted-approach’. Involving the evaluation of specific risks and damages involved in the sector in question, in this case the justice sector. Afterwards assessment can be done on what legal measures can be done to address these, bearing in mind that risk level will fluctuate greatly even within the justice sector, purely based on where and how exactly it is used. As such the CCBE calls for tailored legal requirements to ensure adherence to the principles of the sector. For this purpose, the CCBE provides a table¹⁸ of identifying possible use cases and which principles make themselves apparent in these forms of AI applications.

It is interesting to note that a lot of principles and potential use cases are listed in this, and the targeted approach of the CCBE would provide a lot more clarity on how to proceed regarding the use of legal AI systems than the risk-based approach. Of course, on this note it should also be explained that the AI Act proposal is the first proposed regulation of its scope within the sector that is AI systems and expecting it to cover every sector with a targeted approach is simply unrealistic. Instead, it is more probable that a regulation tailored specifically for the judicial sector utilizing something akin to the sector-approach undertaking a targeted approach

¹⁸ CCBE (2020), p. 7

is something that could be proposed in the future. Despite this, however, nowhere in the CCBE's paper on this, where they present potential use cases and general principles that must be maintained within the judicial sector upon the introduction of legal AI systems, do they mention judiciary independence. Under operation rules and principles¹⁹, the CCBE notes under 'Non-delegation of the judge's decision-making power' that "under no circumstances should the judge delegate all or part of his/her decision-making power to an AI tool.", which at least touches upon the matter, but the wording seem to open up for some changes. This is especially true when considering that this is immediately followed by the sentence "In any case, a **right to a human judge** should be guaranteed at any stage of the proceedings.". It is unclear the exact purpose here, as they mention in quite strong terms, *under no circumstances* and *any or part of his/her decision-making power*, but then quickly follow this with the right to a human judge being guaranteed. It initially comes across as if the CCBE presents some steep requirements, and then quickly notes the right to a human judge guaranteed, as if the CCBE themselves expects that with time we will see legal AI systems being granted decision-making power, and as such it is then important to maintain the right to a human judge for when this happens. This operational rule/principle whilst close does still not touch upon the subject of this paper specifically though, as it centres seemingly only on the rights of those partaking in the process, ensuring rights and general principles are maintained, without looking at the judicial system as an institution as a whole, and how a sector-based approach on AI regulation might seek to regulate concerns regarding principles and rights of the very institution itself.

2.1.2 The European direction

What both of these approaches have in common are that they are both proposed by European bodies. As such they mainly outline approaches as considered from a European perspective, that of the European Union to be more precise, outlining what can be considered the current European direction, in lieu of lack of alternatives, due to how AI is such an emerging trend, as expressed by the European Council themselves in 2017.²⁰

2.1.3 The Norwegian approach

As previously mentioned, this paper will also try to look at the questions from the view of Norway, despite it not being a member state, due to the writer studying in Norway and as such the Norwegian perspective being of particular interest. The first place to look is the government's official national strategy regarding artificial intelligence.²¹ Published in 2020, the paper

¹⁹ CCBE (2020), p. 8

²⁰ European Council meeting (2017), p.8

²¹ Kommunal- og moderniseringsdeparterementet (2020)

discuss how Norway intend to develop, implement, utilize, and regulate artificial intelligence, to varying degrees. It is written that Norway has a long tradition of modernizing their regulations to accommodate for technological development²², but it is also further down noted that it is difficult and often even detrimental to do so at too early of a stage. This seem to propose that Norway's strategy is more one of adaptation rather than innovation when it comes to the question of AI regulation. Concerned with making mistakes and proposing regulations with unintended detrimental effects, the Norwegian government propose instead of adopting a policy in line with the precautionary principle (føre-var-prinsippet), making the decision that it is better to be cautious and wait, rather than risking potentially detrimental policies.

As such there's no Norwegian approach concerning AI regulation in the sense similar to the AI Act proposal or CCBE Response, since Norway awaits with proposing any laws regulating the matter until further notice, due to wanting a more cautious approach. Instead, there's a Norwegian ambition of acquiring advanced competence within the field.²³ But for the purpose of this paper there's therefore no Norwegian approach to study, meaning there's mainly just the European approach formed by the European Union that it to look at. Any analysis of how legal AI systems may be regulated in Norway will be based upon the approach of the European Union, as the AI Act is still set to apply in Norway as well due to Norway being part of the European Economic Area (EEA).

2.1.4 Approach for the judiciary

Together these approaches can be utilized to look at the most likely approaches towards the use of AI systems in the judiciary the European Union in with it its member states are most likely to take, until alternatives are presented, which is always a possibility as more and more countries end up proposing their own legal approaches towards AI systems. As countries decide what approach to take, it will be interesting to see if any of them end up proposing an approach that does not fall into either of the two approaches previously mentioned. Or if all member states of the European Union and those closely related to it, such as Norway, will simply adopt or adapt the approaches already outlined by the European Union, leading to what is known as the Brussels effect. As whilst the risk-based approach of the AI Act proposal will not become the de jure AI regulation of other countries, especially regarding the judicial system, as they do not possess the authority for this, it might become the de facto case, due to how AI systems might require such a degree of expertise that most legislators in member states might find it easier to simply adopt the regulations as proposed by the European Union, and instead make

²²Kommunal- og moderniseringsdeparterementet (2020), p. 21

²³ Kommunal- og moderniseringsdeparterementet (2020), p. 33

minor adaptations where needed to make it fit national law, instead of formulating and creating their own distinct approach and regulation.

2.2 Risk-based or sector-based approach

With both approaches outlined one might look at which approach would fit best for the justice sector. Both in the AI Act proposal and the CCBE's response it is outlined how the judiciary sector is a sector where if certain criteria are fulfilled the AI system must be put under stricter requirements, due to fundamental rights and important principles being threatened by the introduction of AI systems to be used within the legal system. Question of course is what the difference is between a risk-based and sector-based approach. Most approaches will likely be a mixture of these two or others, as the two previous examples were, utilizing the concept of measuring the risk-factor of the AI system in question, whilst also considering the fundamentals of the sector itself, which in the case of the risk-based approach highlights the sector as one of a naturally higher-risk than many other sectors. It would appear though considering what the CCBE would want, compared with what the AI Act provides, that the sector-based approach provides more clarity in more intricate and important legal questions, as it looks deeper into the sector. A potential weakness of the sector-based approach on the other hand is that it is more time consuming to establish, as it would require legislators to look at every sector of society in detail and consider if it requires its own approach or not, and then it must also create such a regulation for the sector in question. In addition, when one tries to establish an exhaustive legislation that handles all potential use cases that may come into question and protect all principles of the sector, is that the use cases and principles that are not covered might suffer from less protection than under a less targeted regulation. After all, if it was meant to be protected why was it not covered by a legislation meant to be exhaustive?

3 Current AI implementations in the justice sector and the 'European Vision'

3.1 Current implementations

For a better overview of how future systems might come to look in Norway or the European Union, we can look at some of those already developed for the justice sector in other countries, inside and outside of Europe. With the first one being a recidivism prediction AI system utilized in some courts of the United States.

3.1.1 COMPAS

Correctional Offender Management Profiling for Alternative Sanctions, more commonly referred to under its acronym COMPAS, is a software that was first used in 1998, and is since 2015 in its fourth generation. Functioning as described by its developers as “an integrated web-based assessment and case management system for criminal justice practitioners”, the system serves more relevantly for this paper in some U.S. courts as a tool for both case management and decision making, providing support regarding recidivism for the decision-making part.

In more recent times the software that now functions as an AI system has come under public scrutiny after Angwin, Larson, Mattau, and Kirchner released an article in 2016²⁴ featured in ProPublica where the writers accused the AI system of being racially biased against black people. Which will be of relevance later in section 5.1.1.1.1 when I will discuss data and data governance requirements.

Originally developed by a private company named Northpointe, the software is currently distributed and owned by another company named Equivant. It should be noted that information on both companies is very limited, with the name Northpointe frequently appearing on Equivant’s own webpage, both the companies have different dates of foundation, making the relation between the two companies highly unclear. Whilst the relation between the two companies is not of relevance for this paper, I felt it should be noted, as it makes the process of following the development process of the software much more difficult and hinders a proper assessment of the values and history of these companies involved in the development and distribution process of the AI system. In addition to reducing potential transparency and determining any potential agenda. This is another topic that will be discussed later in section 6, where I will amongst other topics discuss private businesses as legal AI systems developers, and transparency issues and impact upon judicial independence.

3.1.2 China

China has made its intention clear that they are working towards digitalizing their justice sector through the introduction of the ‘smart court’, an Internet court where AI tools are utilized to greatly improve efficiency. Information about this can be found in multiple articles^{25 26}. It is interesting to note that these articles, in addition to its own official webpage²⁷, paints an image

²⁴ Angwin et al. (2016)

²⁵ Shi, Sourdin, Li (2021)

²⁶ Vasdani (2020)

²⁷ Hangzhou Internet Court (webpage)

of a China rapidly embracing AI technology to digitalize their legal system. Upon researching the matter there seem to be minimal to no sources detailing current controversies or problems with the AI systems, nor providing factual information on adverse effects, instead focusing on all the benefits, particularly to efficiency, which has been a main concern for China due to its high population numbers, to this effect they report a time reduction of an astonishing 65%²⁸ in hearing, credited to this digitalization. This lack of nuanced evaluation is additionally brought up by Shi et al., in their paper.²⁹

3.1.3 SLPS

One of the few AI systems in the European Union is the System Losowego Przydziału Spraw (System of Random Allocation of Cases) (SLPS). An example of use of AI system in the judicial system in the European Union. It's important to note that this AI system is not for use in court rooms and as such is not used as a tool by judges, and thus, differs from the previous examples. Instead, this AI system is utilized by the judicial system to decide which judges are assigned which cases throughout the country.

This raises the question to which degree this AI system falls under the AI Act as AI system for use. This is because of recital 40 of the AI Act proposal. As mentioned in section 2.1.1.1.1 a part of the recital is the clarification that the qualifications for a high-risk AI system in accordance with Annex III point 8(a) should not extend to AI systems for purely ancillary administrative activities that do not affect the actual administration of justice in individual cases. It then goes on to list such activities, without clarifying if these activities are meant to be read as *examples of* purely ancillary administrative activities that do not affect the actual administration of justice in individual cases, or if the list of activities are examples of activities that *do affect* the actual administration of justice in individual cases. It lists for example the allocation of resources. An ambiguous term which I interpret here as anything used to administrate justice in individual cases, extending not only to financial resources. It can therefore describe personnel, which would include judges, expert witnesses, and others used to conduct the process. Which really stress the question of whether the EU Commission truly consider the allocation of judges, expert witnesses, designated court room, time, or other resources that must be allocated during the administration of justice, as a purely ancillary administrative activity that does not affect the actual administration of justice in the individual case.

Due to this unclear language, for this paper I will not exclude any purely ancillary administrative activities from being able to be considered high-risk, unless it is clear that they do not affect

²⁸ Shi, Sourdin, Li (2021), p. 11

²⁹ Shi, Sourdin, Li (2021), p. 13

the administration of justice in individual cases at all, ignoring the list of activities following this clarification, as it is not clear how this list of activities is meant to be read. Examples such as the SLPS is something I will therefore consider as potentially high-risk, depending on interpretation of Annex III point 8(a) and clarification in recital 40 first and second sentence, and not excluded as a purely ancillary administrative activity as according to recital 40 third sentence.

3.2 The ‘European Vision’, ethical values

With the exception of the last one the AI systems listed in the previous sections the two others share the characteristic that none of them are implementations of AI systems within the judicial system taking place in the European Union or Norway. There are further other AI systems already implemented or being developed that could be of interest, but I will not afford myself to grant a proper overview of all of them, but some more relevant ones are e.g., the HART³⁰ AI system utilized by the British law enforcement. Or Estonia’s efforts³¹ towards using artificial intelligence to digitalize their courts, with the ministry of justice working e.g., towards the design of a ‘robot judge’.³² Which if implemented could provide an important example of how we might come to expect legal AI systems, replacing legal functions in the judicial administration that extend further than ancillary tasks, may come to function. Nonetheless the AI systems looked upon can still all serve as possible examples of AI implementations for judicial use. They serve as empirical evidence for this paper, as to how other countries develop and implement legal AI systems, and provide through their development, implementation, and utilization, potential risks and benefits that make themselves apparent, and can as such be utilized in this paper to provide empirical evidence to support its views.

Despite the existence of some current implementations and as such empirical evidence of how legal AI systems can function, I would still argue that the biggest contributor to the European direction on AI systems, and as such an indicator of the ‘European Vision’ on how these AI systems should function remains the AI Act proposal, due to its scope and potential relevance and authority in the European Union. When referring onwards to the ‘European Vision’ I am referring to the European Union’s own ambitions as they themselves have detailed it, as a result of the papers and statements that they have produced and published.

3.2.1 AI Act

³⁰ Walsh (2018)

³¹ Numa (2020)

³² Vasdani (2019)

As whilst the AI Act lists many technical requirements which will be further looked upon in section 5, it is also an attempt to establish an ethical framework. Its scope and ambition could be argued to necessitate both technical and ethical requirements, as it seeks not only to regulate, but also avoid market fragmentation, ensuring the facilitation of AI systems in accordance with ethical values important to the European Union, serving as a guide to its member states, and shape global norms³³, to achieve a coordinated approach towards AI.³⁴ As previously mentioned in section 2.1.1.1.1, to this effort the term ‘ecosystem of trust’ is of immense importance as the development of such an ecosystem is the objective the proposal aims to achieve.

3.2.1.1 *Human centric*

As previously mentioned of these terms in the AI Act proposal is ‘human centric’, where the AI Act emphasizes how it is intended to be human centric. As previously mentioned, this is not expanded further upon, nor is the term repeated again for the entirety of the proposal. More information upon how to interpret the term can be found in the Ethics Guidelines for Trustworthy AI, published publicly in April 2019 by the independent high-level expert group on artificial intelligence, also referred to as the AI HLEG, set up by the European Commission.³⁵ It clarifies that being human-centric means it is in service of humanity and the common good, and that its goal is the improvement of human life, improving welfare and freedom.³⁶ To bring back the questions posed before, could a human-centric regulation allow AI systems that replace human jobs? Could a human-centric regulation support the full digitalization of entire industries, or even institutions? It would appear that per this definition of the term ‘human-centric’, why not? The replacement of humans with AI could still involve them servicing humanity and with the intent to improve human welfare and freedom. Something to keep in mind later in this paper when discussing judicial independence, considering increased automation, and replacement of humans within the judicial system.

3.2.1.2 *Trust*

Another term, one also previously mentioned as central to the proposal, is trust. As the legislators themselves present it, “This proposal aims to implement the second objective for the development of an ecosystem of trust by proposing a legal framework for trustworthy AI.”³⁷. Unlike the term ‘human centric’, the word trust appears numerous times throughout the

³³ AI Act 1.3 p. 5

³⁴ AI Act 1.1 p. 3

³⁵ HLEG, Ethics Guidelines for Trustworthy AI (2019)

³⁶ HLEG, Ethics Guidelines for Trustworthy AI (2019), p. 4

³⁷ AI Act 1.1 p. 1

proposal. Numerous times highlighting the importance of trustworthy AI.³⁸ As such it is unsurprising that this is lastly repeated at the end of the document, under the section of objectives, as the general objective of the proposal. AI HLEG define in their document, that also defined the term ‘human centric’, what constitutes a trustworthy AI. They divide it into three components, which are its requirements, as such a trustworthy AI must be lawful, ethical, and robust. They define lawful as complying with all applicable laws and regulation, ethical as adherence to ethical principles and values, and robust in the sense of both technically robust, and socially robust.³⁹ This clarifies that trustworthy AI as described in the proposal considers the AI systems itself, focusing on how it operates, and that the actions it does must be trustworthy by fulfilling these three requirements. It would be interesting to note if the guidelines and proposal would therefore consider an AI trustworthy if its actions are lawful, ethical, and robust, despite being used in such a way that it threatens important societal structures and values. This will further be expanded upon in section 6 with the discussing of judicial independence.

3.2.2 CEPEJ

Another potential source of the view on the use of AI on how to properly develop it and utilize it in the judicial sector can be found in the European Ethical Charter regarding this, written by the Council of Europe European Commission for the efficiency of justice (CEPEJ). In 2018 they adopted what is called the “European ethical Charter on the use of Artificial Intelligence in judicial systems and their environment” at the 31st plenary meeting in Strasbourg.

Unlike the AI Act, this is not a regulation proposal, but it an ethical charter. Its purpose is establishing a framework that outlines principles, which legislators, and others in the field of legislating and justice can utilize as a guide regarding AI systems. This ethical charter can therefore not provide actual answers on what regulatory measures that will be the case within the European Union, and most likely its member states and those closely related as well. But unlike the AI Act, this ethical charter is written with the judicial system and its environment in mind. As such this ethical charter can provide some potential outlook on what the ‘European Vision’ might be if regulation goes more heavily into detail regarding regulating the judicial sector on the matter of AI systems. As the AI Act proposal is rather vague on the matter, as previously noted. Due to how the AI Act proposal creates a risk-based approach, establishing certain requirements based on the AI system and the risk associated with it, never looking into the sector it is used in and looking at the more precise details of how exactly it is meant to function in the judicial sector.

³⁸ AI Act p.1, 3, 5, 6, 7, 8, 9, 10, 11, 18, 29

³⁹ HLEG, Ethics Guidelines for Trustworthy AI (2019), p. 2 and 5

Due to its nature as an ethical charter, it does not contain specific regulations, instead it begins with the introduction of five principles.⁴⁰ With these five principles the charter serves to establish a set of principles, and with its values, that private and public stakeholders can utilize as a guideline when developing and implementing artificial intelligence tools and services to be used in the judicial system. In addition, it may prove useful to legislators as well, illustrating what values must be protected, and which issues must be regulated. As such the charter serves as ethically reflected for those intending to regulate, develop, or implement AI systems for judicial systems and their environments.

3.3 Implementing the ‘European Vision’

With the ‘European Vision’ in addition to current implementations, inside and outside of the European Union, presented, the next step for this paper will be to look at the actual requirements of the AI Act proposal, to better analyse how the requirements in the proposed regulation may function, particularly in regard to judicial independence. The current implementations and ‘European Vision’ detailed in this chapter will provide both empirical evidence from the current implementations and expectations in line with the ‘European Vision’, to determine if the proposal is able to regulate issues apparent in current implementations, maintain the values underlined in the ‘European Vision’ as itself has decided to base itself upon, and what issues are unregulated, either not followed through despite mentioned in the papers referenced in this chapter under section 3.2, or unregulated and neither considered in these papers detailing what may constitute a sense of the European approach to AI systems, and with its legal AI systems.

But before discussing the specific requirements, I will briefly in chapter 4 highlight what is considered potential key advantages AI systems, to better illustrate why AI systems within the judicial systems very likely might become the norm. Despite the issues that already have presented themselves, and those presented or discussed further in upcoming chapter 5 and 6.

4 Use of AI in the judicial system

So, with the legislation of how to develop and utilize AI systems detailed, a question remains, why exactly one would use AI systems in the judiciary system. And even more important for this paper, which of these uses might threaten its independency, and why might we still see these use cases then happening if they pose a threat to the judiciary’s independency?

4.1 Where AI excels

⁴⁰ CEPEJ (2018), p. 7

Why one would use AI systems in the judiciary system, can be answered by looking at the different ways AI systems can excel. This can provide significant advantages to the judiciary system, thus warranting the risks related to its development, implementation, and utilization.

4.1.1 Efficiency

One of the most central issues with the modern-day judicial systems that seek to safeguard its citizens from injustice through lengthy court cases with multiple appeal instances, is the time- and financial cost one might endure should one go to court to resolve legal issues. In Norway the average duration of a court case in the first instance was in 2020 found to be around five and a half months⁴¹, steadily rising over the last couple of years. In addition, if the case was appealed, the average duration of the appeal case would almost reach an additional seven months.⁴² As such, if the court case was to be appealed, in a trial about a civil legal matter, one would typically be looking at the case lasting a bit more than five and a half months to be resolved, a bit more than a year if it is appealed. This is excluding any other proceedings outside of the courts that might take place, in addition to the possibility that the case gets appealed to the third instance. Despite this, it is nowhere close to the situation in some other European countries. As typically, Nordic and German law systems have shorter trial lengths than common law, and the length is the highest in the French law systems.⁴³ Trial lengths in Italy reach on average reaches almost eight years all three instances, and around 3 years and a quarter if it goes through the first two.⁴⁴ Making the twelve and a half months in Norway pale in comparison. Ultimately only the use of AI systems will truly tell if they are as efficient as some hope or expect them to be, but what is clear with these statistics is that the justice system is in dire need of efficiency, which is why it is such a central issue and driving force for the development of legal AI systems.

4.1.2 Data collection – higher quality judgements

Anyone studying or practicing law is certain to encounter the fact that it involves vast amounts of time spent sifting through large amounts of information and data involving relevant legislation, previous court cases, and other documents of relevance for the legal research or ongoing court case. Today there is the digitalization of a considerable amount of these legal sources, with websites such as *eur-lex.europa.eu* and *lovdata.no*, for European Union and Norwegian legal sources respectively. A McKinsey study shows that this task of data collection and data

⁴¹ Domstoladministrasjonen (2020), p. 21, second figure

⁴² Domstoladministrasjonen (2020), p. 24, second figure

⁴³ OECD Economic Policy Papers (2013), p. 13

⁴⁴ OECD Economic Policy Papers (2013), p. 13

processing is one of the key areas considered easier to automate with AI⁴⁵, sifting through this information faster than any human, and efficiently gather all relevant information for those in need of it. This could enable higher-quality judgements made in a more efficient manner than manual data collection could potentially have achieved.

4.1.3 Consistency

A third potential strength of artificial intelligence could be its potential of providing consistency. Whether the AI system is based upon machine learning or a logic- and knowledge-based approach, the fact remains that the AI system would operate based on a specific coding. This deterministic logic could provide a higher degree of consistency in the assistance it provides, leading to greater predictability in the justice system. This is only as good as its programming, however. Whilst consistency and predictability are values strived towards in the justice system, so is the idea to treat each case with dignity and the ability to distinguish a case to the correct verdict. Overreliance on AI tools might lead to more streamlined verdicts where common factors are prioritized and unique aspects ignored due to how AI systems tend to function.

4.2 Issues

With all of these strengths combined the use of AI systems in the field of justice provides a slew of strong incentives for public authorities to take them into use. It could prove to be cost-efficient and time-efficient, whilst maintaining the expected quality, might even raise it if done correctly, as the AI might lessen or negate human errors or biases. The introduction of AI systems is not without expected disadvantages or issues though. They can pose severe risks to both health and safety, or they may adversely impact fundamental rights. They may also challenge our current ideas concerning how society should function, thereby causing drastic societal shifts. It is therefore important to identify these disadvantages, assess why they might appear, and discern how they are best dealt with. I will therefore now look at the development and implementation, and utilization of AI systems, and look at how the AI Act proposal seek to regulate these processes to avoid expected and potential issues and disadvantages.

5 Development and implementation, and utilization

For this section I will be grouping development and implementation together as the AI Act, which will be the central piece of legislation for this paper, forms its obligation on providers

⁴⁵ Manyika and Sneader (2018), section 2

and users of high-risk AI systems,⁴⁶ grouping the development and implementation process under the term providers, and utilization with users.

5.1 Development and implementation, and utilization

The word development is the term also used by most legislation on the matter, with a focus on promoting development by creating an environment where development of the technology can occur. At the same time the legislation must ensure that the development done is within the values and ideals of where it is developed and intended to be used. A lot of legislative issues therefore occur when these two clash with one another. Legislation surrounding development of products and technology is as such often a weighting between economic and societal interests. For this section I will be looking at the AI Act proposal to outline the legal requirements surrounding development for the judiciary, as it's the most relevant piece of legislation for this paper surrounding AI systems for the judiciary, as the paper is focusing on the European Union and Norway, and Norway have not released any paper comparable in ambition to either of the documents previously mentioned, neither from an international or domestic perspective.

5.1.1 Development for the judiciary

The AI Act proposal is as previously mentioned an extensive document, and as such I will not be looking at all development requirements, but instead focusing on those that are the most relevant for the development of AI systems for the judiciary, specifically for questions relevant for this paper. As this paper will assume that the legal AI systems in question do follow regulatory requirements, discussing rather the question of judicial independence, despite fulfilling these requirements, highlighting the most relevant requirements, how some may alleviate issues, or how the regulation might fall short in their requirements or fail to address the issue entirely. As such I will not be discussing what is a substantial part of the AI Act proposal, such as the ex-ante risk-assessment and conformity assessment, nor the ex-post of governance and enforcement. These concepts make up a substantial part of the AI Act proposal, due to its product regulatory identity, but they will nonetheless not be looked at in this paper. Further in section 2.1.1.1 we looked at the risk-approach and acquired an overview of the AI Act proposal which utilizes this approach for its regulation. For the purpose of this paper only AI systems that are between the level of minimal-risk and high-risk are of relevance. The fourth category of unacceptable AI systems are prohibited in accordance with Art. 5 of the proposal and is as such irrelevant. Then in section 2.1.1.1.1 we looked at how the AI Act is so broad in its definition of AI systems that most legal AI systems would be expected to fall under the regulation, and as such subjected to the typical requirements. Meanwhile it is difficult to ascertain to which degree

⁴⁶ AI Act 3.4 first sentence

they will be subjected to high-risk AI requirements as well, due to how narrow the literal reading of the requirement, for legal AI systems specifically to be considered high-risk, is. Of course, there is always the option that they are subjected to high-risk requirements due to being classified as such under Article 6, but a brief look at Annex II makes this seem rather unlikely due to their nature compared to legal AI systems. Despite this I will mainly focus on requirements for high-risk AI systems, focusing on how it will translate for the legal sector, due to how this best portrays the AI Act proposals potential in regulating legal AI systems, raising both points of whether requirements should be clarified or lessened in such a way that more legal AI systems fall under high-risk requirements, and portraying how even under high-risk requirements there might still be important unregulated issues, raising the question of whether this is intentional or not.

A brief overview of relevant requirements for non-high-risk AI systems will of course also be given, as this further highlights the difference between non-high-risk and high-risk legal AI systems, the advantages it provides to fall below high-risk assessment, and further could serve to highlight what requirements the Commission deemed important enough to affect all AI systems regardless of threat level.

5.1.1.1 High-risk AI requirements

Outlined in Chapter 2 of the AI Act proposal are the requirements for high-risk AI systems. These requirements are spread across eight articles discussing matters of compliance (Art. 8), risk management (Art. 9), data and data governance (Art. 10), technical documentation (Art. 11), record-keeping (Art. 12), transparency and provision of information to users (Art. 13), human oversight (Art. 14), and lastly accuracy, robustness and cybersecurity (Art. 15). Of these eight articles, the ones I will be looking at are Art. (10-14, excluding 11) as Art. 8-9 and 11 centres around topics I mentioned previously will not be of relevance. Article 15 I will just briefly mention, as it centres around accuracy, it is obviously of great importance that a legal AI is accurate, but this paper centres around issues despite their accuracy, or even because of it. And further cybersecurity is crucial in legal AI used by the judiciary, as otherwise hostile intrusions into the system can certainly cause tremendous damages, even threaten judicial independence, but the independence of the judiciary in the sense of safety from active hostile takeover or intrusions is not what this paper is about.

5.1.1.1.1 Article 10, Data and data governance

Article 10 of the proposal concerns primarily the quality of the data upon which the AI system functions. The requirements in this article can end up posing both difficulty for the developer and further the enforcement. This is in large part due to the requirement in Article 10(3) which

requires the data sets to be relevant, representative, free of errors and complete. Ebers et al. write that they consider the requirement of being free of errors, a requirement quite impossible to meet.⁴⁷ Further Schwemer et al. note in their paper⁴⁸ how representativeness, completeness and correctness will be practically impossible to verify when using certain training methods due to it involving billions of tokens spanning across hundreds of languages that require identification. There are thus papers that would argue that all of these requirements will be impossible in some sense, and I am partial to agree with this. Not only for the reasons listed, but I also believe there is an additional complication with multiple of these requirements from the view of the judiciary. Those being what criteria one will utilize to decide what constitutes representative data? This can be extended onto relativeness and correctness, take for example the case with COMPAS, where they were accused of racism, as mentioned previously in section 3.1.1. In response a rebuttal was published⁴⁹, arguing that the AI was not racist, and there are multiple studies that would support the decisions of the AI system. Later the debate would make its way to the newspapers⁵⁰. And whilst the debate centres around whether the AI system is ‘racist’, I would argue it would be more appropriate to question if the AI is making ‘racist’ decisions due to its training data. Rashida Richardson et al. discuss the issue of ‘dirty data’ in a paper of theirs⁵¹, how biased, corrupt, or otherwise ‘dirty’ data can cause a dangerous confirmation feedback loop, and how predictive analysis systems that are unable to detect and remove such data will add onto the issue. This would hold equally true for training data for any legal AI system, as with predictive analysing systems such as COMPAS aiming to predict recidivism, there would be potential issues relating to the data in any area where substantial data sets can be found that would today be considered biased. A system designed to detect such relativeness, correctness, and representativeness begs the question of who gets to define this? I would expand upon this further in section 6.2.

5.1.1.1.2 Article 12, Record-keeping

Article 12 details how the system must be designed with the capability of automatic recording of events, referred to as ‘logs’. It mainly serves to ensure as the article notes “a level of traceability of the AI system’s functioning throughout its lifecycle...”. Otherwise, this article does not say much else other than listing some further requirements, particularly if the system falls under Annex III point 1(a). The requirements are still defined in somewhat broad terms, e.g., ‘a level of traceability’, but overall, no particular issues that may transfer to judicial independence as I can note, nor could I find any sources stating otherwise.

⁴⁷ Ebers et al. (2021)

⁴⁸ Schwemer, Tomada, Pasini (2021), p. 7

⁴⁹ Flores, Lowenkamp, Bechtel (2016)

⁵⁰ Corbett-Davies et al. (2016)

⁵¹ Richardson, Schultz, Crawford (2019)

5.1.1.1.3 Article 13, Transparency and provision of information to users

Article 13 shows in my opinion an intensified focus on transparency when compared with the previous articles mentioned, it is however not without its own flaws. In regard to judicial independence there are two in particular that are worth noting.

First are the requirements per 13(2), detailing how the AI system shall be accompanied with instructions. These instructions must fulfil certain criteria, but more noteworthy is that these instructions must be relevant, accessible, and comprehensible to the users. This obviously puts a requirement upon the provider to fulfil the criteria listed, but to do so they must ascertain the expertise the user has regarding AI systems, this could either be done by determining expected level of expertise, or by ensuring that the instructions can be understood in accordance with the requirements by any layman regarding AI systems. From the other side though, this would also mean that to implement this AI system, if already developed, they must ensure users attain the level of expertise needed to fulfil the requirements. Those unable to attain such a level of expertise might then be denied the ability to utilize the AI system. Which raises the question of who determines which AI systems to adopt, what level of expertise in such systems should in the future be expected from users within the legal system, and what should one do with those unable to attain that level of expertise? Depending on one's answers here one might experience situations where e.g., the government can argue for the replacement of multiple judges, due to their inability to operate the AI system in compliance with the regulation.

Secondly is that the AI Act does not provide transparency to those subjected to the AI system.⁵² I will note here that legal AI systems may also include judges and other personnel in the court administration as persons subjected to the AI system. I agree with Ebers et al.,⁵³ in that an obligation should be amended, where those affected by the AI system can demand an explanation as to why the AI made the decision it did. In the case of the SLPS for example, that would mean that judges would have the right to demand an explanation for why they are allocated the cases they are. This way the judiciary can ensure that in areas where it is subjected to AI systems, it can demand an explanation as to how the AI system made the choices it did. This is also further detailed in section 6.1 and 6.2.

5.1.1.1.4 Article 14, Human oversight

⁵² Ebers et al. (2021), section 5.5.2

⁵³ Ebers et al. (2021), section 5.5.2

Article 14 contains numerous requirements of interest for legal AI systems but is also what some may consider “rife with impracticalities”⁵⁴. From the perspective of this paper a lot of these requirements fall under the same issue as the first one in transparency with the requirements in 13(2). Only now they make themselves even more prominent, appearing to require expertise regardless of the simplicity of the instructions provided by the provider in accordance with 13(2). These requirements are outlined in 14(4) and depending on how one interprets these requirements, especially 14(4)(a), they could prove to be unfeasible.⁵⁵ Thus these requirements compound with the previous one, further complicating the issue previously mentioned.

It does also help alleviating an issue though, by detailing in 14(4)(b) requirements concerning awareness surrounding ‘automation bias’, which is an important note to avoid deterioration of legal verdicts and the unaware automation of the judicial systems as a whole. This topic I will touch upon again in 6.3, going into further detail on the matter.

5.1.2 Utilization

The matter of utilization differs heavily from the development one, as it’s not just a matter of creating the confines to ensure the product is developed within certain parameters. Where the development stage in large part is about creating an ecosystem with boundaries where development can occur without harming society, the utilization stage is more one that shows how the legislators intend for the product to be used. As we are about to see though, there are not much regulation specifically concerning utilization, in the sense of obligations upon the user of high-risk AI systems.

As obligations concerning providers, users, and third parties are detailed in the third chapter of the AI Act. These obligations primarily concern compliance, more technical documentation, and conformity assessment, in addition to automatically generated logs again. These articles fall outside of the scope intended for this paper and will not be further looked upon. Except that Article 29 details obligations of users of high-risk AI systems. On the matter there is exceedingly little of relevance for this paper, with the exception of Article 29 point 1 and 3, which serve merely to further add onto requirements requiring further expertise, by further obligating the user to ensure they use the AI system in accordance with instructions, and that they ensure the input data is relevant in view of intended purpose.

⁵⁴ Ebers et al. (2021), section 5.5.3

⁵⁵ Ebers et al. (2021), section 5.5.3

5.2 Assessment

It is as such my assessment of the requirements as detailed in the AI Act of relevance for this paper that even in the circumstance that the system is identified as high-risk, there are multiple issues related to maintaining judicial independence that make themselves apparent, such as who gets to assess what data is relevant or correct? Who gets to decide what data is representative? Furthermore, how steep requirements can one enforce upon judges? And what does one do with the judges unable to comply with the expertise to fulfil technical requirements concerning understanding of AI systems? I will be further looking upon these questions, in addition to others not even covered or brought up the AI Act, still relevant to judicial independence in regard to legal AI systems.

6 Maintaining judicial independence

As is clear with the emergence of artificial intelligence, it is highly probable that it has the potential to drastically change our society. I would argue this is especially the case within the judicial system, due to its human centric nature and its standing as an institution. Yet the high need⁵⁶ of increased efficiency might still call for such drastic changes to take place. To quote Oscar Wilde “The bureaucracy is expanding to meet the needs of the expanding bureaucracy.”⁵⁷. One particular emerging issue with the use of artificial intelligence in the judicial system, as previously noted, is the human rights aspect as there are certain rights involved that might be difficult to fulfil with the use of an AI. A less discussed issue based on the amount of data I could find on the subject, seem to be maintaining judicial independence with the introduction of AI systems.

Regarding the question of judicial independence, there are three aspects I would want to bring up. The independency of the judge, the independency of the judicial branch as an institution, and the independency of the case. This is also the order in which I will be discussing them.

6.1 The judge

The independency of the judge is a matter frequently discussed in terms of impartiality and potential biases. In Norwegian law a judge is meant to be independent in his work as a judge

⁵⁶ OECD Economic Policy Papers (2013), especially p. 13

⁵⁷ There exist no sources to confirm Oscar Wilde said this, but the quote is popularly attributed to Oscar Wilde, and as such I will do the same in this paper

and is meant to pass judgement in such a way that instils public trust and respect.⁵⁸ This is not identically regulated across countries in the areas discussed in this paper, but they all maintain some version of this in accordance with Chapter 6 Article 47 of the Charter of Fundamental Rights of the European Union, instilling expectations upon a judge of independency in their work. A judge is expected to minimize outside influence to maintain the utmost degree of impartiality possible. When this ideal is broken it can result in trials, such as the well-known decision conducted by the Canadian Supreme Court in 1990.⁵⁹ The trial highlighted how the discussion of a case between judges where one of the judges were not part of the case should be limited, and that care must be shown, as there is important limitation as to how such discussions may be conducted. If outside influence is to be limited though, and even discussion of a case between judges is something one might be wary of. Where does this place the use of AI systems as an assistant tool for a judge?

In the AI Act proposal, one might wonder if this is sufficiently safeguarded. It is explicitly called out in Annex III point 8(a), which denotes what constitutes a high-risk legal AI system, that “AI systems intended to assist a judicial authority...”, thus assistant tools are obviously considered. But as noted in section 2.1.1.1 this is then narrowed down by the requirements “... in researching and interpreting facts and the law and in applying the law to a concrete set of facts.”. As discussed in the paper referred to in this section⁶⁰, it details how the use of *and* in this matter creates a narrow scope, where the assistant tool must both research *and* interpret, and it must research *and* interpret *both* facts *and* law, and in addition it must apply the law to a concrete set of facts. A very literal interpretation means that an AI assistant tool used by a judge that then interprets the fact and the law, and then applies the law to a concrete set of facts, would not be considered high-risk, as it didn’t also research these elements. As such it becomes highly uncertain how the AI Act proposal in practice will end up classifying such a legal AI system.

In the CCBE’s response, this aspect is also mentioned. It is listed as one of their main concerns, “The undermining of the principle of impartiality due to the impossibility of neutralising and knowing the biases of the system designers.”⁶¹. As such the CCBE suggest that the following safeguard should be upheld “The neutrality and objectivity of AI tools used by the judicial system should be guaranteed and verifiable”⁶². The CCBE’s response highlights an issue regarding impartiality that might bring into question the further issue of who has the right to develop legal AI systems. As highlighted by the CCBE the idea of bias might not only spring

⁵⁸ Jf. Domstolloven § 55 third paragraph

⁵⁹ Iwa v. Consolidated-Bathurst Packaging Ltd

⁶⁰ Schwemer, Tomada, Pasini, (2021)

⁶¹ CCBE (2020), p. 7

⁶² CCBE (2020), p. 8

forth from biased datasets provided during training for a machine learning system such as problematized with the COMPAS system, but might actually come from the system designers themselves, and this might be either intentionally or unintentionally. Such a matter extends not only to the impartiality of the judge, but the institution as a whole.

It would appear that the importance according to the CCBE is the maintaining of neutrality and objectivity of the AI tools, meanwhile the AI Act looks at the how the AI tool assists to determine risk. Thus, the former looks at the impartiality of the information the judge is provided to ensure their independency, whilst the latter considers the extent of its use. An AI tool researching the facts is one thing, another is one interpreting facts, and then there is the AI tool that does all the operations listed⁶³. The way the AI Act proposal is worded one can argue it only considers the last one the high-risk AI by default. How does the proposal then quantify the cumulative risk of using multiple AI tools that used in tandem all perform these operations? I would theorize that due to the word *intended purpose* one might additionally consider if these tools are *intended* to be used together or not by its developer. If they are all developed by the same. Otherwise, one would expect each individual AI tool to avoid the default high-risk classification, as it is not the developers' fault that they are used differently than intended.

Cumulatively these issues could prove a significant threat towards the impartiality of the judge, and with it the independence of the judiciary. Private businesses or different branches of the government, such as the executive, could lead the effort of developing AI tools that are then implemented and utilized by the judiciary. As none of these tools singularly qualify as high-risk AIs they are subjected to less requirements, but as time progress an increased amount of them are developed for use by the judiciary, and eventually their cumulative use would have qualified if they had been a singular system, but they are not, so they remain in the lower risk categories. As the presence of AI tools increase, so does the presence and impartiality of the judge erode, until it is no longer a threat to the independence of the judge, but the institution as a whole.

6.2 The institution

Regardless of intention from the designers, the idea of outside biases influencing judges into making certain decisions is of such a concern that I would caution the idea of an unregulated right to develop AI systems for use within the judiciary sector. This concerns both AI tools developed by the executive branch of the government as well as private businesses or foundations. I stress the use of the term executive branch to differentiate between the judiciary power and the executive power within the state. To contrast the idea of AI tools developed by the court

⁶³ AI Act, Annex III point 8(a)

administration, directly or through an expert team under their supervision, with that of an AI system developed by the executive branch through one of its ministries or departments.

The SLPS system developed in Poland show us such an example of the executive branch through the Ministry of Justice developing an AI system handling the allocation of cases to judges, and already there exists articles⁶⁴ criticizing the lack of transparency of the system and potential biases implemented by the Ministry to assure certain judges are given certain cases to ensure cases that are politically sensitive have a higher chance of being given the desired verdict. This would be further problematic if instead of handling case allocation, the AI systems developed by the Ministry of Justice, running on their computers, by their developers, would assist judges in either interpreting or researching the law or facts, influencing the judge towards a favourable outcome seen from the perspective of the Ministry. It is especially interesting to note because a substantial amount of the examples of development and implementation that we currently see, such as in Poland, Estonia, and China, would all be examples of AI systems developed by the executive to be used by the judiciary. It raises the question whether this is because the executive branch is the one that has the required resources and expertise, or the ability to initiate the process, and as such might not want to relinquish it to the court administration once the development process has been initiated. If it is purely a matter of resources and expertise, then it might become necessary to allocate those resources to the court administration. If judiciary independence is therefore to be maintained one might wonder if all court administrations will need to receive the funding needed to start the development of their own AI expert teams so the process can be done under their own supervision. This obviously does not remove the possibility of biases, those can certainly exist within the court administration and any expert recruited to the team as well, but at least from the perspective of public trust and the idea of the separation of powers, this might be an alternative that could prove itself a preferred alternative.

On the topic of private businesses, the issue of transparency presents itself further. In the case of the SLPS the Ministry had to publish information on how the system operated with graphical and verbal description.⁶⁵ What I consider a crucial factor in this is that the SLPS was developed by the Ministry, for the use of the court administration, this means its *intended purpose* was for the courts. In the case of private businesses their *intended purpose* as given by the company may not be for use by judges or any part of the judiciary. This could lead to issues, as not only would it make the system low-risk as seen by the AI Act proposal, but private businesses would have interest in ensuring their code is not public, as it is their intellectual property which is earning them money. Bringing up the question if we could expect to see a legal decision akin to the Polish in such a matter. Additionally, the agenda of a private business developing a legal

⁶⁴ Fundacja Moje Państwo (2021)

⁶⁵ Ministerstwo Sprawiedliwości, (2021)

AI system could potentially be more difficult to ascertain. In the case of the SLPS controversy arose due to politically sensitive trials appearing less random than would be expected when it came to the judge allocation. Such a phenomenon could potentially be vastly more difficult to catch in an AI system developed by a private business, such as the case with Equivant, the company related to COMPAS. With a minimal media profile as denoted by the distinct lack of information that can be found about them, besides their own homepage⁶⁶, how is someone meant to investigate and detect subtle biases implemented into the software?

Expanding upon the idea of private businesses developing legal AI systems I would like for the reader to imagine a scenario where AI systems developed by private businesses are not allowed to be implemented and utilized by judges or the entirety of the judiciary as a whole. In this scenario could this AI system still threaten the independency of the institution? There are numerous use cases for such legal AI systems without them having to be used within any national judiciary institution. It could be intended to be used by lawyers and companies to handle copyright and patent disputes, preparing case material, and provide legal assistance. None of these would necessarily appear to pose an immediate threat to judiciary independence, but consider if this AI system was then presented as an alternative to handle disputes? There already exists such alternatives that do not utilize AI, such as the Uniform Domain-Name Dispute-Resolution Policy⁶⁷ (UDRP), that provide an alternative to traditional courtroom litigation. Designed to provide efficient and predictable decisions⁶⁸, this alternative offer arbitration with a short amount of time between filing the complaint and receiving the verdict, at a staggeringly low cost compared to what a courtroom litigation could end up costing the losing party. In time there might be such alternatives utilizing AI systems to ensure an efficient process, in terms of both time and cost. If the system ends up a success it might become an attractive alternative, as the current cost in both time and money that is associated with taking someone to court is a limiting factor for people that might want to bring a matter to court, but are unsure if they can bear the cost, even if they were to win. In such a scenario we might observe an ever-increasing shift towards the use of alternative platforms to handle legal matters, and these alternative platforms might be governed by private businesses or organizations. If this shift became drastic enough, we might experience not only a threat to the independence of the judiciary as an institution, but to its authority and existence as well. An argument supported by Sourdin, raising the issue of maintenance of the rule of law as well in their paper⁶⁹, where they discuss the concept of online ‘courts’ and potential AI judges. I argue this extends to all potential courts outside the judiciary branch without judicial supervision, but these alternate tribunals might become more

⁶⁶ Equivant (webpage)

⁶⁷ Mahler (2019), p. 94

⁶⁸ Rabinovich-Einy (2015) p. 61

⁶⁹ Sourdin (2021), p. 3-4

common with the introduction of AI tools, especially if these tools are not embraced by the judiciary branch. That is why although the concept already exists, the introduction of AI system has the potential of expanded it in such a pace and scope that the result could pose a serious threat to the independence of the judiciary. Sourdin reference⁷⁰ a quote by the Senior President of Tribunals, Sir Ernest Ryder, that I agree illustrate the point.

When justice slips out of sight ... the prospect of arbitrary, incompetent or unlawful conduct raises its head. Again, if we simply accept the argument that private online dispute resolution is the way in which the majority of disputes, and in some areas all disputes, may be resolved in future we accept this loss of accountability; we further accept the growth of a democratic deficit. And the same is the case if we divert public justice to an unobservable online forum. Our digital courts must be open courts.⁷¹

I will stress that I am not arguing for the demand of a ban of all legal AI systems developed by private entities, they be businesses, organizations, or individuals. This scenario would happen because the traditional justice system of courtroom litigation involving human judges cannot provide adequate results from public view, if the efficiency-gap between the two alternatives become too big to ignore, without quality being sacrificed to an unacceptable degree for those involved. After all, people do have the right to receive legal redress in due time. That is why there is the adage that “Justice delayed is justice denied”. Therefore, if private businesses further continue the development of legal AI systems, it could become imperative that governments and the judiciary start the development of their own AI systems, lest they be forced to use the tools developed by those private businesses or risk the destitution of one of our most important institutions. Instead, it stands to be replaced by an alternative where the ones governing it, digital corporations, or similar alternatives, possess minimal notion of the concept of rule of law. Treating it instead as a business where time and cost efficiency is paramount.

All together it would appear that the judiciary as an institution is at threat of losing both its independence, as well as its role and authority, were it to be developed by any other entity than itself. Yet there appear to be none or few examples where the development of legal AI tools are done by the judiciary itself. Previously noted in section 3.1 with examples of current implementations. These were all done either by the executive branch, or private entities, businesses, or foundations. In the areas of focus, the European Union and Norway, all current developments and implementations where it is used within the justice sector are being done by the executive branch, raising the issue of separation of powers. A. Michael’s paper referenced earlier in the

⁷⁰ Sourdin (2021), p. 4

⁷¹ Ryder (2018), p. 4-5

introduction brings up this issue regarding separation of powers,⁷² though from the viewpoint of replacing human judges with AI ones. I maintain though that the arguments made regarding the role of the judiciary in this paper extends to the use of AI as tools as well, and that in the pursuit of efficiency one must take care not to lose critical functions of the judiciary. As it extends to more than just passing verdicts, but also to pay attention to the law, to review how it functions, to discuss it, and as such to shape it.

6.3 The case

For the last matter regarding independency with the judicial sector there is the matter of the independency of the case. Less of an apparent issue than the two former ones and one where there was limited information on the matter. I nonetheless would like to bring up the matter of the principle that each case should be judged on its own merits. By that I refer to the concept that a judge is meant to view each case and apply the law upon the facts of that specific case, the judge's role to distinguish a case. Whilst many cases are similar, each of them is meant to be treated unique and judged as such. An overreliance on the use of AI tools might threaten this concept. In the AI itself and its dependence on previous data, focusing on similarities and unable to distinguish cases in the way a human judge is able to. Additionally, as brought up in section 5.1.1.1.4, it could create 'automation bias' where the judge fails to catch important details differentiating the case from others due to an overreliance on the AI tools. Consistency, as mentioned in 4.1.3, is one of the strengths that legal AI systems could provide the judiciary sector. However, it will be important to ensure that consistency is not prioritized in such a manner that decisions fail to consider the uniqueness of each case and distinguish it from others. Opting instead of favouring efficient and consistent verdicts above the time and reflection that each case is due.

7 Conclusion

In the beginning of my paper I wrote that I would be discussing how the development, implementation, and use of AI systems within the justice may threaten the independency of the judiciary power. We looked at how there are two central approaches towards regulating AI systems. The risk-based approach and the sector-based approach. How the AI Act proposal use the risk-based approach to create a framework where all AI systems are regulated proportionally according to risk, but the CCBE calls for a more targeted sector-based approach due to the complicated nature of the justice sector. There exist examples of current implementations, but they are not without their issues. The potential data bias of COMPAS and the threat of increased influence from the executive branch over the judiciary branch with the Chinese

⁷² Michaels (2020), p. 13

Internet courts and the Polish SLPS system. The AI Act lists requirements, but as detailed in chapter 5 and 6, they do not appear sufficient to safeguard judicial independence, as they are in some areas too unprecise in their definitions⁷³ and too narrow with their qualifiers⁷⁴, or in some examples they fail to mention or regulate the issue entirely. Revealing that there are unregulated threats towards judicial independence, which can be divided into the judge, the institution, and the case.

When President von der Leyen of the European Union announced “A Union that strives for more”⁷⁵ a political commitment was made to establish a coordinated European approach for AI.⁷⁶ I hope it has been made clear in this paper, that the proposed regulation is one of ambition. Hoping to tackle regulatory issues regarding new technology, to facilitate regulated development, establish a framework to guide others, and this could help avoid courts falling behind technological advancement due to legislators not being pro-active with passing regulations as new advancements make themselves apparent. In comparison to Norway whereas detailed earlier the national strategy is to observe and gather more knowledge, as government and legislators are more worried about legislating counterproductive regulations, as opposed to the danger of remaining reactive. A strategy that will result in the European Union formulating the entirety of the Norwegian approach on AI systems through Norway’s membership in the EEA.

I bring to attention the topic of ‘the right to develop’ legal AI systems. Who are the ones that get to develop them, and for what purpose can they be used? The controversy surrounding SLPS show the danger of an uncritical approach to one branch of the government developing intricate technological systems such as AI systems, to be used in another branch of the government. It is my opinion that the ideal scenario would be the judicial branch itself developing the expertise in the field and acquire resources required to develop these systems for themselves. A discussion must be had between judges to determine the extent AI systems can be integrated into the process as tools without risking impartiality or automation bias. It must be discussed in such a way that questions regarding the effects of who develops what kind of legal AI systems are made clear, critical towards development done by private businesses and organization, as well as the executive power. Discussion must also be had within the judiciary on how it can attain the expertise needed to both develop AI systems, and to use them in agreement with the requirements put forth by the AI Act proposal.

⁷³ AI Act, Recital 40 third sentence

⁷⁴ AI Act, Annex III point 8(a)

⁷⁵ Leyen (2019)

⁷⁶ AI Act 1.1 p.1

In the AI Act itself, to help maintain judicial independence, ambiguity regarding what qualifies as a high-risk system within the area of ‘administration of justice and democratic processes’ must be removed. The text must be written in a much more precise manner, where it is clear whether the listed operations are cumulative or not. It must also be discussed by the lawmakers how the requirements mentioned in chapter 5, that appear impossible to achieve when developing AI systems for the justice sector, will be dealt with.

As this proposal is only the first stage of the legislative procedure⁷⁷ of the European Union it will be interesting to pay attention to changes and amendments made after its reading in the European Parliament and the Council, and if any of these changes or amendments resolve the issues that this paper has brought up for discussion.

⁷⁷ European Union (webpage)

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