Forthcoming in Ordine Internazionale e Diritti Umani 2022(5)

HELGA MOLBÆK-STEENSIG*

AI AT THE EUROPEAN COURT OF HUMAN RIGHTS: TECHNOLOGICAL IMPROVEMENT OR LEAVING JUSTICE BY THE WAYSIDE?

ABSTRACT: More and more national courts are incorporating or considering incorporating various digital technologies, including Artificial Intelligence(AI) in their case processing and adjudication. The promise of both lessening workloads and creating greater consistency, and thereby equality, in adjudication are powerful motivators in this regard. There are also indicators, as machine learning applications for judicial systems are developing with remarkable speed in recent years, that the European Court of Human Rights is moving in this direction. At the same time concerns have been raised both in academic literature and at the international institutions level, that the use of AI and other complex computing in the administration of justice comes with significant risks of discrimination and denial of justice. This article provides an overview of the arguments for and against various kinds of technology being considered for or already implemented in various jurisdictions and compares them with the European Court of Human Rights' existing caselaw on the use of technology in the administration of justice, and public information available on the Court's plans to incorporate technology itself. It finds that the Court has applied a pragmatic approach to the use of technology in national jurisdictions but has remained firm on transparency requirements and proportionality in data collection and use. It also finds that although the Council of Europe has made early strides in understanding and regulating AI for the field of justice, the European Court of Human Rights remains a very analogue institution and it will take time before it can make effective use of emerging technologies.

1. Introduction

> «As Judges we are all under a certain amount of pressure to perform more efficiently, to deliver justice more speedily. Artificial intelligence offers certain opportunities in terms of case-processing. Yet the risks to human rights need to be clearly understood and managed»[1]

* PhD-researcher at the Faculty of Law at the European University Institute. Helga.molbaek-steensig@eui.eu. ORCiD: 0000-0002-7659-8737.

[1] President or the European Court of Human Rights ROBERT RAGNAR SPANO in: European Court of Human Rights, Council of Europe, 2021, *Background Document: Dialogue between judges: The Rule of Law and Justice in a digital age*, Strasbourg,

The European Court of Human Rights (ECtHR) is already the world's most efficient international court in terms of decision-output per judge, but it still struggles against a massive backlog of cases.[2] In short, it does not have the necessary resources to deal with the number of cases it receives. One solution that has been aired by President Spano of the ECtHR (2020-2022) is an increased usage of information technology, specifically Artificial Intelligence(AI), to manage the Court's docket, although the President also maintained that the ECtHR should remain benched by human judges. The ECtHR is not the only court working on incorporating technology for the benefit of justice and/or efficiency. In fact, the single most frequent reason for finding a human rights violation at the ECtHR is unreasonably lengthy proceedings, so streamlining judicial systems has potential to improve human rights protection in member states and to help lessen the caseload of the ECtHR.[3] At the same time there are concerns. In other jurisdictions it has become evident that there are risks connected with the practice of using AI in criminal courts and administration, and the European Commission's 2021 proposal for EU regulation of AI categorises its use in judicial settings as high-risk.[4]

This article will provide an overview of Council of Europe soft law instruments and ECtHR caselaw on the use of new technologies in the administration of justice and compare this with the potential usage at the ECtHR itself. This study is undertaken with a view to understanding how human rights adjudication may react to the expected increase in AI-based technologies in the field of justice, but it will also make a contribution to the literature on access to justice when justice is served utilising complex computing. In terms of terminology, this article deals broadly with the incorporation of new technologies in judicial settings, and thus not exclusively with AI. It applies a broad definition of AI similar to that applied in the preparatory works of the EU and the Council of Europe in their proposed regulations of AI. This entails that machine learning algorithms that mimic human cognition, such as reading, sorting, estimating probabilities, and recognising patterns, all fall under the AI umbrella, regardless of whether the algorithm is self-improving. It also means that there is no requirement of self-awareness or passing of the Turing test[5] for something to be named AI, and that while some algorithms are inherently black box designs that limit the ability of an outside observer to understand the relative weights given to each parameter, this is not necessarily the case with all technologies which will be labelled AI in this article. The term 'automated decision making' will instead be used to describe situations where the user of the technology either does not have access to the source code or may not fully understand it due to having non-technical educational background.

There is already an emerging body of academic literature accompanied by a broad range of international governmental-, and non-governmental reports and declarations[6] on

---

[2] H. MOLBÆK-STEENSIG, *Subsidiarity does not win cases: A mixed methods study of the relationship between margin of appreciation language and deference at the European Court of Human Rights*, in *Leiden Journal of International Law,* 2022; M. R. MADSEN, *Rebalancing European Human Rights: Has the Brighton Declaration Engendered a New Deal on Human Rights in Europe?*, in *Journal of International Dispute Settlement,* 2018, 9.

[3] H. MOLBÆK-STEENSIG AND A. QUEMY, AI and the Right to a Fair Trial, in QUINTAVALLA AND TEMPERMAN, *AI and Human Rights,* United Kingdom, 2022.

[4] COMMISSION, 2021, *Artificial Intelligence Act,* Brussels, Preamble para 40. Proposal 206

[5] A. M. TURING, Computing machinery and intelligence, in Parsing the turing test, 2009[1950].

[6] Such as COUNCIL OF EUROPE - EUROPEAN COMMISSION FOR THE EFFICIENCY OF JUSTICE (CEPEJ), 2021, *Revised roadmap for ensuring an appropriate follow-up of the CEPEJ Ethical Charter on the use of artificial intelligence in judicial systems and their environment* Strasbourg, , X. RONSIN, V. LAMPOS, A. MAÎTREPIERRE, F. CONTINI, F. D. SANTIS, J. LASSÈGUE, D. REILING AND A. ZAVRŠNIK, European Commission for the Efficiency of Justice

the use and potentials for misuse of AI and other types of complex computing in the administration of justice. This article will build on these empirical and theoretical developments, contributing to the literature in two ways focused on the ECtHR. First, it will conduct a systematic analysis of ECtHR caselaw dealing with the impact of technology and automation on national judicial systems to discover how the issue has been treated by the final arbiter on human rights in Europe, and second, it will compare this with the sparse public information available on the ECtHR's plans to incorporate AI in its own administration.

2. Context and gap in the literature

The field of AI has been moving incredibly fast in recent years,[7] and many applications which appeared as distant pipe dreams only a decade ago have now been implemented in several jurisdictions. Including predictive policing,[8] the use of facial recognition at borders and public spaces,[9] the determination of parole decisions with the use of recidivism prediction software[10] and predictive justice software both for determining whether to go to court, and for adjudication in simple cases.[11] This rapid change in practice is reflected in the literature in the field. Where early literature in the 1990s and 2000s was mostly abstract and focused on theory and modelling of how AI might be implemented in courts,[12] more contemporary pieces tend to be focused more directly on existing applications in practice and research as examples of potential usages.[13]

Another body of contemporary literature is focused on the risks of injustice and discrimination posed by the incorporation of automated decision-making that is already happening.[14] Such literature critical of automation has raised concerns over the quality and

---

(CEPEJ), 2018, *European Ethical Charter on the use of Artificial Intelligence in judicial systems and their environment: Appendix I In-depth study on the use of AI in judicial systems, notably AI applications processing judicial decisions and data*, Strasbourg, COUNCIL OF EUROPE - EUROPEAN COMMISSION FOR THE EFFICIENCY OF JUSTICE (CEPEJ), 2018, *European Ethical Charter on the use of Artificial Intelligence in judicial systems and their environment,* Strasbourg, , COUNCIL OF EUROPE - EUROPEAN COMMISSION FOR THE EFFICIENCY OF JUSTICE (CEPEJ), 2016, *Guidelines On How To Drive Change Towards Cyberjustice: Stock-taking of tools deployed and summary of good practices,* Strasbourg, EUROPEAN COMMISSION, COM(2021) 206, 2022, *Proposal for a Regulation of the European Parliament and of the Council laying down Harmonised Rules on Artificial Intelligence and Amending Certain Union Legislative Acts,* Brussels.

[7] See for example RAJKO KNEZ and PEGGY VALCKE's contributions in R. SPANO, P. VALCKE, B. J. V. ETTEKOVEN, M. E. R. TRÍAS, R. KNEZ AND D. D. GROOT, RIGHTS, Council of Europe, 2021, *Proceedings of the Seminar: Dialogue between judges: The Rule of Law and Justice in a digital age*, Strasbourg.

[8] C. O'NEIL, *Weapons of math destruction: How big data increases inequality and threatens democracy*, New York, 2016.

[9] F. CHIUSI, S. FISCHER, N. KAYSER-BRIL AND M. SPIELKAMP, *Automating Society*, Germany, 2020.

[10] Wisconsin Supreme Court, 2016, 2015AP157-CR, *State v Loomis*, Strasbourg.

[11] F. CHIUSI, S. FISCHER, N. KAYSER-BRIL AND M. SPIELKAMP, *Automating Society*, cit. 9.

[12] See for example this overview of notable articles from the 2000s G. SARTOR, M. ARASZKIEWICZ, K. ATKINSON, F. BEX, T. VAN ENGERS, E. FRANCESCONI, H. PRAKKEN, G. SILENO, F. SCHILDER AND A. WYNER, *Thirty years of Artificial Intelligence and Law: the second decade*, in *Artificial Intelligence and Law,* 2022, , C. R. SUNSTEIN, *Of artificial intelligence adn legal reasoning*, in *U. Chi. L. Sch. Roundtable,* 2001, 8.

[13] D. L. CHEN, *Incremental AI*, in *American Journal of Evaluation (forthcoming),* 2022, , D. L. CHEN, M. DUNN, L. SAGUN AND H. SIRIN, *Early predictability of asylum court decisions*, in 2017, Y. CAO, E. ASH AND D. L. CHEN, *Automated fact-value distinction in court opinions*, in *European Journal of Law and Economics,* 2020, 50.

[14] Such as V. FIKFAK, *What Future for Human Rights? Decision-making by algorithm*, 2021. And C. O'NEIL, *Weapons of math destruction:* cit. 8, P. MOLNAR AND L. GILL, *Bots at the gate: A human rights analysis of automated decision-making in Canada's immigration and refugee system*, 2018.

implicit biases in training materials and algorithm design,[15] to over-reliance on accuracy as the main premise for whether a technology should be implemented, ignoring whether it is in the nature of the legal task in question to depend on predictions.[16] In many cases such concerns are attempted ameliorated by so-called 'human in the loop' approaches. This refers to the idea that human judges can be assisted by but not replaced by artificial judges. The benefit of such an approach should be that the judicial system can take advantage of the speed and accuracy of automated systems whilst maintaining the human judge as the ultimate arbiter, someone capable of catching errors and seeing the full picture rather than the individual parameters the AI has been trained on. There is however an additional body of literature which questions this approach, investigating the human biases of automation and anchoring bias which can undermine human-in-the-loop approaches to AI incorporation.[17] Automation bias refers to the tendency in human cognition to be overly deferent to conclusions provided by automatic systems. It is related to the tendency to place greater emphasis on evidence that is presented in a numerical way as opposed to the same evidence presented in a qualitative way. In many ways this bias demonstrates a healthy scepticism towards one's own intuitions in favour of more concrete evidence. The problem emerges because automated decision-making tools are incapable of and therefore usually also not designed to take into account all the evidence that a judge is duty-bound to consider.[18] An example of such a bias could be to place an excessive amount of emphasis on the grade given by a recidivism prediction software, ignoring that concerns other than the likelihood of recidivism should legitimately play a part in the determination of sentence-length. This was exactly the theme in the now infamous American *State v Loomis* case from the Wisconsin Supreme Court where the applicant complained that the Circuit Court had placed too much emphasis on the results from a recidivism prediction software and had robbed him of his right to a fair trial based on individual assessment.[19] The opposite of automation bias is algorithmic aversion, the tendency to ignore algorithmic results due to an assumption that the algorithm is biased. Both biases are problematic when attempting to create human-AI collaborations in the field of justice. Anchoring bias on the other hand is not specifically related to automation or AI but refers to the tendency for decision-makers to be 'anchored' meaning that they diverge little from the first estimate of something like sentence length they encounter, even when being explicitly told that the estimate is random.[20]

In addition to these critical strands of literature there is also a strand promoting the usage of automated decision-making in judicial contexts, often emphasising well-known problems with length of proceedings, discriminatory biases in humans and existing judicial

---

[15] W. BATEMAN, *Algorithmic Decision-Making and Legality: Public Law Dimensions'(2020)*, in *Australian Law Journal,* 94.

[16] J. RYBERG, *Risk-based sentencing and predictive accuracy*, in *Ethical Theory and Moral Practice,* 2020, 23, A. BIRHANE AND F. CUMMINS, *Algorithmic injustices: Towards a relational ethics*, in *arXiv preprint arXiv:1912.07376,* 2019, P. VALCKE in *Dialogue between judges: The Rule of Law and Justice in a digital age*, cit. 7.

[17] P. VALCKE in *Dialogue between judges: The Rule of Law and Justice in a digital age*, cit. 7, B. ENGLICH, T. MUSSWEILER AND F. STRACK, *Playing dice with criminal sentences: The influence of irrelevant anchors on experts' judicial decision making*, in *Personality and Social Psychology Bulletin,* 2006, 32, I. COFONE, AI and Judicial Decision-Making, in MARTIN-BARITEAU AND SCASSA, *Artificial Intelligence and the Law in Canada* Canada, 2021, V. FIKFAK, *What Future for Human Rights? Decision-making by algorithm*, in *Strasbourg Observers,* 2021.

[18] I. COFONE, *AI and Judicial Decision-Making*, cit. 17, 6.

[19] *State v Loomis,* cit. 10.

[20] B. ENGLICH, T. MUSSWEILER AND F. STRACK, *Playing dice with criminal sentences,* cit. 17.

systems, as well as the accuracy of algorithmic predictions.[21] The pro et contra literature is supported by scholarship aiming to provide theory-based and generalisable answers to the question of what kinds of tasks can be outsourced to an AI in the interest of justice, and which cannot. Such pieces come in a variety of typologies. Some utilise general theories on legal or moral philosophy,[22] while others refrain from adherence to a specific theory of justice but emphasise the importance of securing human rights to non-discrimination and privacy[23] or evaluates on the basis of established doctrines of administrative law and good governance such as transparency, reason-giving, and non-delegation as well as distribution of responsibility when the algorithm gets things wrong.[24]

For the purposes of this analysis, it is therefore relevant to keep in mind two things. The first is that the field of AI is moving fast and machine learning algorithms are already being applied in judicial systems throughout Europe, although the development appears to be further ahead at other stages of government, first and foremost administration.[25] Some technology is used by actors around the courts, such as lawyers aiming to determine whether a case is likely to succeed before advising their clients on whether to litigate,[26] or researchers aiming to understand what influences judgment outcomes.[27] Other technologies are used within the courts themselves for anonymising judgments for publication, for organising case dockets, for research for relevant precedents,[28] and – more controversially – for deciding simple cases and small claims,[29] for providing early drafts of judgments, and for determining recidivism risks, in some cases as an aid in the determination of the initial sanction applied.[30] The second is that the Council of Europe (and the EU, but that is outside the scope of this article) has aimed to place itself at the forefront of AI regulation for the benefit of human rights. The Council of Europe has thus both through its Committee of Ministers,[31] and through its Parliamentary Assembly[32] issued declarations, resolutions, and guidelines on the use of AI in general and in judicial systems in particular. The ECtHR is also particularly well-placed to review potential negative consequences for human rights protection due to the incorporation of machine learning algorithms in the administration of justice. Though no cases specifically on the use of AI applications in the administration of justice have yet been

---

[21] Compelling arguments have been made in D. KAHNEMAN, O. SIBONY AND C. R. SUNSTEIN, *Noise: a flaw in human judgment*, 2021.

[22] H. MOLBÆK-STEENSIG AND A. QUEMY, *AI and the Right to a Fair Trial*, cit. 3.

[23] A. BIRHANE AND F. CUMMINS, *Algorithmic injustices,* cit. 16.

[24] AD HOC COMMITEE ON ARTIFICIAL INTELLIGENCE (CAHAI), Council of Europe, 2020, *Feasibility Study*, Strasbourg, paras 13-14, C. COGLIANESE AND D. LEHR, *Regulating by robot: Administrative decision making in the machine-learning era*, in *Geo. LJ,* 2016, 105.

[25] See for example: Rechtbank Den Haag, 2020, C-09-550982-HA ZA 18-388, *SyRi case*, Strasbourg.

[26] F. CHIUSI, S. FISCHER, N. KAYSER-BRIL AND M. SPIELKAMP, *Automating Society*, cit. 9, 150-152.

[27] D. L. CHEN, M. DUNN, L. SAGUN AND H. SIRIN, *Early predictability of asylum court decisions,* cit. 13, M. BENESTY, *The impartiality of some French judges undermined by machine learning*, France, 2016.

[28] X. RONSIN et al., *European Ethical Charter on the use of Artificial Intelligence in judicial systems and their environment: Appendix I* cit. 6.

[29] F. CHIUSI, S. FISCHER, N. KAYSER-BRIL AND M. SPIELKAMP, *Automating Society*, cit. 9, 72, I. COFONE, *AI and Judicial Decision-Making,* cit. 17, 7.

[30] Problems with opacity and bias have been evident in the application of the recidivism risk software COMPAS, see for example: HLR, *State v. Loomis: Wisconsin Supreme Court Requires Warning Before Use of Algorithmic Risk Assessments in Sentencing*, in *Havard Law Review,* 2017, 130, C. O'NEIL, *Weapons of math destruction*, cit. 8.

[31] CEPEJ, *European ethical Charter,* cit. 6.

[32] PARLIAMENTARY ASSEMBLY OF THE COUNCIL OF EUROPE (PACE), 2020, *Resolution 2342: Justice by algorithm – The role of artificial intelligence in policing and criminal justice systems,* Strasbourg.

adjudicated at the ECtHR, the Court has reviewed numerous cases on previous incorporations of new technologies in the field of justice. This makes the study of ECtHR plans for the incorporation of AI a particularly interesting one. In part because it has the potential to demonstrate what a human-rights respecting approach to incorporating these technologies could look like, and because it may demonstrate unavoidable pitfalls in the incorporation of AI even when institutions aim to adhere to the at this stage relatively vague requirements and recommendations from international institutions. In the following section the Council of Europe's declarations and relevant ECtHR practice will be outlined to describe the Council of Europe's vision for human rights-adhering AI application in the field of justice. Hereafter will follow a section on the presumed plans and opportunities for incorporating AI and other complex computing solutions in the management of the ECtHR docket, while a final section will conclude.

3. Council of Europe position through declarations and ECtHR practice

The Council of Europe has been relatively far ahead in addressing many of the concerns raised by academic literature on the incorporation of AI into judicial systems. This has been through both the Parliamentary Assembly in the form of its 2020 Resolution 2342 on Justice by Algorithm, the Steering Committee for Human Rights in the form of comments and further development of Resolution 2342, and the European Commission for the efficiency of Justice (CEPEJ) which is appointed by the Committee of Ministers, in the form of the 2018 European Ethical Charter on the use of Artificial Intelligence in Judicial Systems (EECAI). While these are all soft-law instruments and recommendations, they have provided a semi-legal language for addressing the risks related to the incorporation of AI in judicial systems, including those of algorithmic biases, procedural inequality, opacity of AI systems both for commercial reasons and due to lack of expertise among system-users, or inherent black-box design, and lack of clarity regarding the placement of responsibility for decisions taken by machines.[33] As such, the Council of Europe has been among the first movers creating a general framework for the regulation of AI in the administration of justice. This has in turn been essential in laying the groundwork of for example the EU's AI Act which will in all likelihood be the first enforceable international legal instrument on the topic and is expected to become a global standard in much the same way as the General Data Protection Regulation (GDPR) from 2018 has become.[34]

Since 2016, well before the creation of these soft-law instruments, CEPEJ studied and promoted the use of information technologies generally in the administration of justice. Initially the CEPEJ focused mostly to the uptake of simple infrastructure technology such as file-sharing and communication via court-websites.[35] On the topic of the use of simple decision support systems (DSS), such as templates and databases, this initial work raised concerns that there was a risk that the technology, through the ordering of case-law results

---

[33] Ibid., THE STEERING COMMITTEE FOR HUMAN RIGHTS (CDDH), 2021, *Comments on the Parliamentary Assembly Recommendation 2182(2020) - Justice by Algorithm – The Role of Artificial Intelligence in Policing and Criminal Justice Systems,* Strasbourg.

[34] See for example: R. U. MARK BRAKEL, CLAUDIA PRETTNER, Future of Life Institute, 2022, *The AI Act*, Brussels.

[35] CEPEJ: *Guidelines On How To Drive Change Towards Cyberjustice: Stock-taking of tools deployed and summary of good practices,* cit. 6, paras 1-41.

or through auto-fill suggestions might surreptitiously impact the independence of the judge.[36] This is in line with the automation bias identified in the literature. The solution suggested in the 2016-guidelines and developed further in the 2018 EECAI included an input- and an output side in five general principles. Namely ensuring legal-ethical control with the initial technical input, that is, securing that the development of the DSS and AI is done with a clear understanding of what it is that the court in question does or is supposed to do, with a focus on securing human rights and non-discrimination.[37] On the output side of the equation was instead user control – including user-education, providing training to judges and clerks to enable them to understand what the DSS does and what it does not do, as well as transparency of the technical details of the applications in use including periodical external auditing.[38] As such the EECAI adheres to the notion that given the right training and openness of source code, a human-in-the-loop approach can be an adequate insurance against algorithmic bias. The EECAI also included a principle that the data used for model input and training had to be certified and complete,[39] which would address to some extent the problem of algorithmic bias due to low quality of input data – but not algorithmic biases due to human biases in the input data. All of these instruments, including the EECAI, remain soft law instruments which limit their coercive power, and they are fairly abstract which weakens good faith implementation. Work is underway in the Council of Europe to clarify and concretise the recommendations into a handbook for the use of member states, but it is unlikely to come out until 2023 at the earliest.[40] In the meantime, the ECtHR has long been tasked with resolving questions related to the use of technology in the administration of justice, giving us some insights into what in practice application might look like.

The ECtHR has not created a specific approach for evaluating the use of technology in judicial systems but relies instead on its generally developed caselaw on affected rights, mainly Article 6 on the right to a fair trial and Article 8 on the right to privacy, and while it has a rich caselaw on the use of surveillance technologies including those utilising artificial intelligence, it has yet to develop a body of caselaw on the use of automated decision-making in courts. Part of the explanation for this, is that it takes a long time for cases to make it through first all domestic remedies and then the ECtHR system and in this perspective, practical applications of AI is still very recent. On the use of technology in courts and society more generally however, the ECtHR has proved itself to be rather pragmatic, focusing on the consequences for access to court and equality of arms of individual technologies rather than taking a principled stand on whether certain technologies are overall more beneficial or problematic. That said, apprehension due to the opacity of the use of certain machine learning enabled technologies, can also be identified in the caselaw.

In some cases, the ECtHR has favoured the use of known technology, such as in *Lawyer Partners a.s. v. Slovakia* from 2009, where the applicant company in question filed more than 70.000 civil actions for debt recovery, choosing due to the high number of suits, to record them on a DVD and send them to the court along with an explanatory letter rather than file them physically. The court refused to register the cases citing that it lacked the necessary equipment although domestic law allowed for filing in various formats. The ECtHR ruled that since the documents of the many suits would have amounted to 40 million pages, and

---

[36] Ibid., paras 44, 47-51.
[37] CEPEJ, *European Ethical Charter* cit. 6, Articles 1 and 2.
[38] Ibid., Articles 4 and 5.
[39] Ibid., Article 3.
[40] CDDH, *Comments on the Parliamentary Assembly Recommendation 2182(2020),* cit. 33, para 5.

since filing in certain digital formats was legal under national law, it seemed perfectly reasonable for the applicant to file in a digital rather than physical form, and the court's refusal to register the suits amounted to denial of access to court.[41] Similarly, but to the detriment of the applicant and benefit of the state, the ECtHR had no particular problems with software engaged in automatic tagging and selection of data for the inclusion into investigative reports for the use of the prosecution in complex cases in *Sigurður Einarsson and Others v. Iceland 2019*.[42]

Contrary to this openness to technological solutions, the ECtHR has been apprehensive about the retention of biometric data and other surveillance data in national databases for the use of crimefighting, potentially with the use of AI. In both *S and Marper v. the United Kingdom* which concerned the retention of biometric data of individuals that had been acquitted of criminal suspicion[43] and in *Gaughran v. the United Kingdom* a case concerning an applicant who had been convicted of a minor offence, the ECtHR found that the permanent retention of DNA, fingerprints and photos of the applicants was contrary to their rights under Article 8, placing particular emphasis on the fact that the authorities had plans to make use of facial recognition software on such databases.[44] In cases about the indiscriminate collection of data such as *Big Brother Watch and Others v. the United Kingdom, Roman Zakharov v. Russia,* and *Breyer v. Germany* the ECtHR's balancing has placed particular emphasis on the security of stored data, on the length of data storage, the technology available to make practical use of the data collected, and whether those subject to surveillance had been informed that they were being monitored.[45]

Given this combination of technological pragmatism on the one hand and strict requirements for transparency of both data collected and the technology used to utilise it on the other, the ECtHR is well-placed for responsibly incorporating the use of AI in its processes without damaging its legitimacy. At the same time, the ECtHR has not yet had the chance to review any practical implementations of automated decision-making software, judicial decision support systems, or other AI tools applied in domestic judicial systems. This means that the guidance the ECtHR has on these specific implementations, is no better or worse than the guidance currently available to national systems, namely from the soft-law instruments and general recommendations provided in the EECAI as well as various declarations from the Parliamentary Assembly and reports from the Council of Europe's various Committees including the Committee for the efficiency of justice (CEPEJ), and its working group on the quality of Justice ((CEPEJ-GT-QUAL), as well as the Committee on Artificial Intelligence(CAI, previously CAHAI). Each of these documents are generalised guidance on the implementation of AI in judicial systems, none are specifically tailored to application at the ECtHR.

---

[41] European Court of Human Rights, 16 June 2009, nos. 54252/07 and 14 others, *Lawyer Partners a.s. v. Slovakia*, Strasbourg.

[42] European Court of Human Rights, 4 June 2019, no. 39757/15, *Sigurður Einarsson and Others v. Iceland*, Strasbourg.

[43] European Court of Human Rights, Grand Chamber, 4 December 2008, nos. 30562/04 and 30566/04, *S. and Marper v. the United Kingdom [GC]*, Strasbourg.

[44] European Court of Human Rights, 13 February 2020, no. 45245/15, *Gaughran v. the United Kingdom* Strasbourg. Paras 67-70.

[45] European Court of Human Rights, 13 September 2018, 58170/13, 62322/14, 24960/15, *Big Brother Watch and others v. The United Kingdom*, Strasbourg. , European Court of Human Rights, 30 January 2020, no. 50001/12, *Breyer v. Germany*, Strasbourg. , European Court of Human Rights, 4 December 2015, no. 47143/06, *Roman Zakharov v. Russia [GC]*, Strasbourg.

It is important in this regard to keep in mind that the reason why the ECtHR has not reviewed any cases on the use of AI in the administration of justice, is not because such practices do not exist. Indeed, NGO-reports and academic literature suggest that many jurisdictions both in and outside Europe are already making use of these types of technologies to varying degrees.[46] This makes sense given the desperate need for increases in efficiency in many national jurisdictions.[47] Thus far, caselaw on the use of algorithms in national jurisdictions has focused mostly on uses in public administration rather than in the judicial system, but many of the concerns raised and principles established are conceivable also as part of adjudication. Examples include the SyRi case from the Netherlands in which the government's usage of an algorithm for welfare fraud detection was challenged by several civil society interest groups. The Hague court sided with the applicants finding that the SyRi system collected data indiscriminately, that its usage of the data collected was opaque, and that citizens did not have adequate access to challenging the information collected about them.[48] This case evidently utilised ECtHR interpretation principles on Article 8 but did not reach the ECtHR because it was resolved at the national level. Another interesting case further from the ECtHR jurisdiction, but more closely related to the usage of complex computing in the administration of justice, is the beforementioned *State v Loomis* from the Wisconsin Supreme Court. This case concerned the usage of the recidivism prediction software COMPAS for the initial sentencing of the applicant, Mr. Loomis, in a drive-by shooting case at the Wisconsin Circuit Court. The applicant argued that he had been denied the right to an individual trial of law and that the recidivism software was discriminatory because it incorporated gender into its assessment. The Wisconsin Supreme Court eventually found in favour of the state, arguing that Loomis' case had still ultimately been decided by a human judge since the Circuit Court had merely been informed by the calculations conducted by the software, it had not been bound by them. As for the question of whether COMPAS incorporated gender in its assessment, the state and the applicant were in disagreement and the Wisconsin Supreme Court ultimately decided that it could not say for certain whether the software used the parameter or not. This illustrates quite clearly how the proprietary nature of some algorithmic applications can constitute a barrier to justice when courts are to evaluate the human rights credentials of algorithms utilised in the executive and judicial branches. It is difficult to guess whether the case would have found a different outcome at the ECtHR, but interviews with the 2020-2022 President of the ECtHR, Robert Ragnar Spano may offer some clues. These are analysed in the section below.

4 ECtHR plans to incorporate AI

---

[46] G. SARTOR, M. ARASZKIEWICZ, K. ATKINSON, F. BEX, T. VAN ENGERS, E. FRANCESCONI, H. PRAKKEN, G. SILENO, F. SCHILDER AND A. WYNER, *Thirty years of Artificial Intelligence and Law: the second decade,* cit. 12, N. WANG AND M. Y. TIAN, 'Intelligent Justice': AI Implementations in China's Legal Systems, in *Artificial Intelligence and Its Discontents,* 2022. , I. COFONE, *AI and Judicial Decision-Making*, cit. 17, F. ZUIDERVEEN BORGESIUS, Council of Europe, Directorate General of Democracy, 2018, *Discrimination, artificial intelligence, and algorithmic decision-making*, University of Amsterdam, , P. MOLNAR AND L. GILL, *Bots at the gate*, cit. 14, K. VERVLOESEM, *How Dutch activists got an invasive fraud detection algorithm banned*, Netherlands, 2020. , F. CHIUSI, S. FISCHER, N. KAYSER-BRIL AND M. SPIELKAMP, *Automating Society*, cit. 9, W. BATEMAN, *Algorithmic Decision-Making and Legality: Public Law Dimensions'(2020),* cit. 15.

[47] H. MOLBÆK-STEENSIG AND A. QUEMY, *AI and the Right to a Fair Trial*, cit. 3.

[48] *SyRi case,* cit. 25.

Public information on the ECtHR plans to incorporate AI in its decision-making is currently very limited. There have been no press releases regarding changes to the procedure in favour of automation, nor has sections on procedural innovation in the Court's annual reports indicated that a change is underway. The public's knowledge about the Court's plans for incorporating AI into its procedures are therefore limited to indications that this is the case given by the President of the Court, Robert Ragnar Spano in various interviews. The President has touched upon the theme of incorporating AI and other complex computing in the procedures of the Court since he first took office in 2020. In an interview with Mikael Rask Madsen in May 2020 little more than a week after he took office, Spano thus explained that the Court was working on incorporating complex computing into its case processing,

> «There are ways in which a court like ours, which is a mass bulk case court, with thousands and thousands of cases, can make use of information technology and algorithms to help us in the processing of cases; and even in the future, help us in the disposition of cases. »[49]

In the same period, he elaborated this position in an interview with Rosalind English for the Law Pod UK. This podcast dealt more generally with the opportunities and pitfalls of incorporating automated decision-making into judicial systems, rather than the prospect of incorporating it into the adjudicative processes of the ECtHR. In this episode, Spano conceptualised legal algorithmic decision-making as encompassing two challenges. One being form, securing that the process of decision-making is legitimate, transparent and that it is clear who is accountable for the decisions reached, the other being substance, securing that the decision reached is the right one, that it is consistent, ensuring equality by treating like cases alike. In the podcast, the President also discussed the American case on the use of recidivism risk assessment software in initial sentencing, *State v Loomis*[50] decided by the Wisconsin Supreme Court.[51] In the Law Pod UK podcast, President Spano maintained that American constitutional law is different from the European human rights law, but also argued that:

> «it is important to make the following distinction: is the algorithm or automated decision making only used as a facilitator or is it used as a substitute? That was also the distinction in State v Loomis, the case I mentioned from the US, where it was accepted that algorithms could be facilitators but they could not be substitutes.»[52]

As indicated in the sections above, much academic literature is critical of such a human-in-the-loop approach as it can be vulnerable to tech washing,[53] automation biases[54] and due to

---

[49] M. R. MADSEN AND R. SPANO, *Authority and Legitimacy of the European Court of Human Rights: Interview with Robert Spano, President of the European Court of Human Rights*, in *European Convention on Human Rights Law Review,* 2020, 1, 179-180.
[50] *State v Loomis,* cit. 10.
[51] HLR, *State v. Loomis:* cit. 30.
[52] R. SPANO interviewed by ENGLISH, New Strasbourg Court President on AI and the law, United Kingdom, 22.5.2020 2020.from minute 22
[53] PACE, *Resolution 2342,* cit. 32, para 7.2.
[54] P. VALCKE in *Dialogue between judges: The Rule of Law and Justice in a digital age*, cit. 7, 9.

the opacity of algorithms, both built-in, due to proprietary factors and due to lack of education and understanding on behalf of the users of the software.[55] Such a distinction between full automatization and AI as facilitation is therefore far from adequate in securing legitimate and successful application of AI to a court such as the ECtHR.

In later interviews, the President has come a bit closer to explaining where the ECtHR is contemplating incorporating AI. The initial suggestion appears to be to automate the registration and to some extent the determination of admissibility of incoming applications,

> «We are now in a phase where we are evaluating whether we can, at the registration phase, introduce algorithmic or automatic decision-making so as to reduce the extent to which this whole registration process has to be done manually, but also to ensure that when it is done, we can use the data that is introduced into the system in a more effective manner. I do think looking to the future that a mass bulk caseload such as ours will start introducing algorithmic tools to facilitate its task.»[56]

It is not surprising that the registration phase is the first choice for the Court to incorporate automation. The Court receives a huge bulk of applications, the vast majority of which are either rejected as incomplete or found to be inadmissible. In 2021 the Court also treated an abuse of the right to application (Article 35-3-a) case, *Zambrano v France* which was the first of its kind to contain a coordinated attack on the Court with the explicit aim of paralysing the Court.[57] The applicant in question had set up an automatic application generating script on his website through which people could generate their own human rights applications which were almost identical to the one he had written for himself. The complaint in question concerned the introduction of the French Health Pass in the management of the COVID-19 pandemic, which the applicant believed was a violation of his rights under Articles 3, 8 and 14 of the Convention. The Court found the application to be inadmissible due to non-exhaustion of domestic remedies, and furthermore to be an abuse of the right to application. Before the case reached the Chamber, the applicant's followers had lodged more than 18.000 identical applications. The Court, which is already under immense caseload pressure, would naturally benefit from a reliable way to sift through incoming applications to identify abuse of this kind.

The *Zambrano* case is all the more extraordinary when you keep in mind that the Court has not yet abandoned its practice of requiring applicants to print and physically post their application forms once filled out. The number of abusive applications could have easily been higher if the application procedure was purely digital. On the flipside, full digital application would simplify the Court's access to screening applications for repetitions and abuse, and it would ease the submission of genuine applications as well. The combination of analogue application procedures and the ambition to include automatic decision-making in the registration process at the Court suggests that the Court is not particularly far ahead with the incorporation of algorithmic tools in its procedures. That said, the filtering section, which

---

[55] CEPEJ, *European Ethical Charter,* cit. 6, Principle 4.

[56] R. SPANO interviewed by NESS, Human Rights and Democracy in the Age of Digital Transformation and COVID-19, United States, 2021. From minute 15.

[57] COUNCIL OF EUROPE, 2021, *Annual Report of the European Court of Human Rights 2021*, Strasbourgh, 43, European Court of Human Rights, 21 September 2021, no. 41994/21, *Zambrano v. France* Strasbourg.

is the section in the Registry which registrates cases from the most frequent respondent states, has already incorporated semi-automatic drafting of inadmissibility decisions regarding clearly inadmissible cases, but these tools still require Registry employees to enter all information into the system manually. In one of the last interviews given by Spano in his capacity as President of the Court, he stated that while the Court continues work on determining how various types of technology may help it in the future, implementation of the tools discussed throughout his tenure remain untenable for the foreseeable future.[58] The current analogue setup of the Court is an obvious stumbling block in this regard.

Another part of the Court where we might expect to see the incorporation of algorithmic tools, is the office of the Jurisconsult which is the research unit of the Court and which guides the judges among other things on which previous caselaw might be relevant to a judgment they are adjudicating. This office plays an important role in securing consistency of the Court's caselaw and thereby also equality, in that like cases are treated alike. The Court has produced a massive body of caselaw, and although it does not formally have to adhere to *stare decisis* it has stated on numerous occasions that it will not without good reason depart from established caselaw.[59] This requires of course that no cases are forgotten. Currently the Jurisconsult conducts research on the caseload and the Registry curates several caselaw guides on various articles and themes, and the Court's caselaw is mostly consistent, although it is on occasion criticised for forgetting cases,[60] and it has been suggested that there are different levels of severity for different member states.[61] Certain algorithmic applications are particularly well-suited to assist in discovering relevant previous caselaw on the basis of keywords, words in context and citation networks.[62] Given this, I would expect, although no information has been released from the Court to this effect, that the research and drafting divisions in the Registry and under the Jurisconsult are other likely appliers of complex computing in the future of the Court, and potentially one of great benefit to the Court's productivity and legitimacy.

A potentially more worrying application of AI at the ECtHR would be for automated inadmissibility decisions as alluded to by the President in the interview with Susan Ness. The decisions on inadmissibility are already the least transparent work conducted by the Court, since the majority of admissibility decisions are not published, specifically those decided by a single judge formation.[63] The exact nature of the decision-making process is also fairly opaque since the reasoning provided in the decisions forwarded to applicants is summary and usually written by the Registry employees only to be approved by a single judge. In this case, especially as automated decision-making becomes commonplace in many domestic courts, the ECtHR risks adding an additional layer to a non-revision culture in which certain types of cases are automatically sorted and rejected at every judicial level, including the ECtHR which ought to act as a safety net. An additional stumbling block in the potential

---

[58] R. SPANO interviewed by MADSEN, Nine years at the Court: Interview with President of the European Court of Human Rights Robert Spano, Denmark, 11 October 2022.

[59] Principle established in: European Court of Human Rights (Grand Chamber), 18 January 2001, App. no. 27238/95, *Chapman v. the United Kingdom [GC]*, Strasbourg. Para 70.

[60] T. ZWART, More Human Rights than Court: why the Legitimacy of the European Court of Human Rights is in Need of Repair and how it can be done, in FLOGAITIS, et al., *The European Court of Human Rights and its discontents : turning criticism into strength,* Cheltenham, 2013. 86.

[61] B. ÇALI, *Coping With Crisis: Whither the Variable Geometry in the Jurisprudence of the European Court of Human Rights*, in *Wisconsin International Law Journal,* 2018, 32, M. R. MADSEN, *Rebalancing European Human Rights,* cit. 2.

[62] H. MOLBÆK-STEENSIG AND A. QUEMY, *AI and the Right to a Fair Trial*, cit. 3.

[63] H. MOLBÆK-STEENSIG, *Subsidiarity does not win cases,* cit. 2.

usefulness of AI in the admissibility phase is that the Court receives applications in 37 different languages of the High Contracting Parties,[64] unlike its judgments which are delivered in one or both of the two official languages, English and French.

5 Conclusions

Most domestic courts are overworked and under-resourced, making the right to a fair trial within a reasonable time the most frequent violation of the European Convention on Human Rights. There is also amble evidence that human biases can interfere with the administration of justice in both criminal and civil cases. There may therefore be significant human rights-related benefits to expediating and streamlining case processing, including with the use of new technologies. Among the technologies already being applied in various European courts, some are well-known and include digital submission and tracking of cases as well as the introduction of video-call based adjudication and other smart-working initiatives during the early phases of the pandemic. Others require more complex computing and are less transparent for non-experts and therefore more contentious, including semi-automated drafting assistance or programmes for identification of precedents, programmes that assist in conducting probability assessments of human behaviour or of likelihood that evidence is genuine, and in a few instances fully automated decision-making for simple, low-stakes, and repetitive cases. Others yet utilise the same machine-learning technologies as the more contentious applications but are usually not considered to be problematic, such as automated anonymisation of judgments for publication in online databases. Given this rapid development of technological tools for increasing the productivity and fairness of justice, a rich literature has emerged assessing both the benefits and risks of such technologies, and there is a rush among legislators to understand the technologies and regulate them where necessary before they become a *fait accompli*.

The European Court of Human Rights and the Council of Europe are particularly well-placed to play an important role in this regard. The right to a fair trial, Article 6 under the Convention, and the right to privacy, Article 8, are among the most often applied and well-developed in the ECtHR's caselaw and the most likely rights to come under pressure if implementation of new technologies in the administration of justice results in algorithmic biases or other problems. The ECtHR is also an important court to watch because like most domestic courts but unlike most ad hoc international adjudicative bodies, it is battling a large backlog of cases because its caseload is consistently higher than its capacity to address cases. This remains the case although the backlog has been significantly reduced in recent years, first and foremost by instigating new processes for dealing with simple cases resolved through well-established caselaw and for dealing with clearly inadmissible cases.

This article analysed the ECtHR practice on the use of technology in the administration of justice and compared it with the public information available about the Court's own plans to incorporate information technology in its case registration and adjudication. It found the ECtHR to be a rather pragmatic institution with regards to technological innovations in the field of justice. The Court has not taken any principled stands that some technologies are inherently off-limits and incompatible with human rights. Instead, it substantively analyses each individual use of technology in relation to the principles laid down in its caselaw

[64] See the Application forms in different languages here: https://www.echr.coe.int/Pages/home.aspx?p=applicants/ol&c=

regarding the right in question and evaluates whether such usage has an adverse effect on its application. For Article 6 cases this entails that the technology applied cannot diminish access to court or the equality of arms, while for Article 8 it requires that there is a proportional relationship between the societal benefit of collecting and curating certain personal data and the interference with the right to privacy. The same has been the case for the soft law instruments developed by the Council of Europe which do not exclude any technologies but require safeguards for avoiding discrimination and algorithmic bias as well as a high level of transparency both on the data input and results output side of applications used in a judicial setting. The forthcoming EU AI Act on the other hand does envision that some AI applications will come with an unacceptable risk and will therefore be banned. The field of justice however will be labelled as 'high risk' which creates obligations for risk mitigation, but no outright bans.

As for the Court's own plans to incorporate AI in its case processing, there has not yet been any official reports or press releases, but the perspective has been touched upon multiple times by Robert Spano who was president at the Court 2020-2022. Given the high caseload of the Court and the high number of repetitive cases, the motivation to incorporate technology in case handling is obvious and there ought to be several low hanging fruits where automation could aid the Court in expediating case processing without posing risks to its independence. This could for example entail automatic registering of case data freeing up the Registry form menial typing tasks to dedicate more time to assessing the admissibility of cases. Another use could be an initial sorting of cases into seemingly repetitive and non-repetitive, without changing the process at the three-judge Committees, which although the sorting today is done by human intelligence in the Registry, on occasion does yield jurisdiction to a Chamber, deciding that the case is not so routine after all. Another place where AI and other complex computing might be utilised to make a positive difference, could be in the office of the Jurisconsult, the Court's research unit. This office is tasked with conducting research on ECtHR practice and provides commentary to draft judgments ensuring that no precedents are unintentionally left out and that comparative law analyses are comprehensive. It also keeps track of ongoing cases to ensure that forthcoming Grand Chamber cases are considered by Chamber cases dealing with the same issue. The work conducted in this unit is therefore not so different from legal research and may well benefit from technological tools developed to conduct such research including with the use of AI for organising the caselaw body, recognising patterns in large amounts of data and identifying particularly relevant cases. Despite the will and opportunity to utilise AI, the Court still has a long way ahead before this becomes a reality. It was only in October 2022 that the ECtHR abandoned the practice of requiring requests for interim measures to be filed by the use of fax machines in favour of an online portal,[65] and the Court still only receives applications through physical mail.[66] Although technologies exist that can recognise physical documents and digitalise them, this insistence on physical mail still puts a natural damper on how fast and how accurate application data can be entered into the databases of the Registry, which

[65] European Court of Human Rights Press, October 3 2022, at:
https://twitter.com/ECHR_CEDH/status/1576949652225609729
[66] ECHR Application form to be sent to The Registrar, European Court of Human Rights, Council of Europe, 67075 Strasbourg Cedex, France. As per:
https://www.echr.coe.int/Pages/home.aspx?p=applicants/forms&c= Last accessed 6.11.2022.

in turn puts a damper on how effectively the Court will be able to utilise digital technologies without transitioning to a digital application platform.