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The Adoption of Artificial Intelligence in Family Law – Brand New or Well-known Idea?

Zastosowanie Sztucznej inteligencji w prawie rodzinnym – całkowicie nowa czy dobrze znana idea?

Abstract

On 30 November 2022, sensing artificial intelligence's (AI) capacities have become at people's fingertips more than ever. The public release of ChatGPT, based on the GPT-3.5 engine, was a pinnacle in the long-standing discussion about AI. In a short time, the media was flooded with news heralding the technological breakthrough that would revolutionise every occupation. The improved GPT-4.0 engine, released in March 2023, fitted the narrative, as the new version achieved much better results than its predecessor. The envisaged ubiquitous automatization of work, supported by generative AI, will also affect family lawyers despite many claims that seasoned attorneys, furnished with complex legal knowledge and human compassion, could never be replaced by machines. Regardless of the defensive tone, AI in family law practice and the family justice system has become a fact. Flashy industry news created an image of AI as a brand-new concept, although the first AI-based solutions were introduced in family law in the early 1990s. Many family lawyers are unaware that providing legal aid or representing clients is almost impossible without coming across automated processes, collectively defined as AI. Are we then witnessing sluggish progress, and the information about the breakthrough is intentionally distorted by blatant marketing? In the article, I will attempt to assess AI's development pace in family law by examining the existing and envisaged models of its adoption.

Keywords

AI in family law, automatisation of family law, technology and family law

Streszczenie

Celem artykułu jest krytyczne spojrzenie na stopień rozwoju sztucznej inteligencji (AI) w prawie rodzinnym jako elementu światowego trendu polegającego na ewolucji nauki prawa i praktyki prawniczej w kierunku daleko idącej komputeryzacji i automatyzacji. W ostatnich dwóch latach środowisko prawnicze zostało postawione przed faktem pojawienia się w przestrzeni publicznej programów opartych na zaawansowanych algorytmach i uczeniu maszynowym, które w dłuższej perspektywie mają zastąpić prawników wraz z ich specjalistyczną wiedzą i umiejętnościami praktycznymi. Prawo rodzinne jest jednak działem prawa prywatnego, w którym szczególnie podkreśla się rolę „czynnika ludzkiego". Ma on polegać zwłaszcza na umiejętności odczytania

szerokiego spektrum skomplikowanych ludzkich emocji i podejmowania optymalnych decyzji na podstawie subiektywnej oceny nadrzędnych interesów podmiotów prawa. Tym samym sztuczna inteligencja odrzucana jest przez część prawników rodzinnych jako szkodliwy wynalazek. Pomimo dwóch skrajnie odmiennych narracji – z jednej strony o konieczności zaakceptowania AI jako elementu nowej ery, z drugiej nieugiętej obrony przed jej szkodliwymi skutkami – sztuczna inteligencja jest immanentną częścią prawa rodzinnego w wielu jurysdykcjach od ponad 30 lat. Czy można zatem powiedzieć, że rozwój AI w prawie rodzinnym jest ograniczony? W niniejszym tekście postaram się odpowiedzieć na to pytanie.

Słowa kluczowe

sztuczna inteligencja w prawie rodzinnym, prawo rodzinne i AI, rozwój technologii w prawie rodzinnym

1. AI that lawyers can no longer ignore

The idea of applying AI-based technology to solve legal problems is hardly a novelty. Most researchers date it back to the 1970s, albeit that the pioneering L. Allen's article on his research program on using logic to improve the drafting and interpretation of legal documents was published in 1957[1]. Also, it is challenging to pinpoint the moment when scholars or practitioners started to contribute widely to the discussions and research on this matter. Yet, the growing popularity of computers and the birth of the internet catalysed the grand shift in insights into the common understanding of information processing[2]. Despite numerous existing papers shedding light on the chances and dangers of the "AIsation" of law and the legal profession, particularly in the last few years, there has been abundant news about the emergence of powerful new AI tools. AI itself has become a "buzzword" hovering over many industries, including lawyers, threatened with extinction due to cheaper, faster, and more effective automatised legal services[3]. These bold statements resonate even more strongly in the legal community, as there is a widespread misconception that "the study of law and information technology comes with an inherent contradiction"[4]. Undoubtedly, outside of AI legal researchers deeply immersed in this topic,

[1] A.E, Layman, *Symbolic logic: A razor-edged tool for drafting and interpreting legal documents*, "The Yale Law Journal" 1957, 66/6, pp. 833–879. In a non-legal context, B. Barraud writes that A. Turing proposed the concept of artificial intelligence as early as 1950 during his work on the "imitation game". B. Barraud, *Le droit en datas: comment l'intelligence artificielle redessine le monde juridique*, "Revue Lamy Droit de l'immatériel" 2019, 50, pp 49–69.

[2] F. Bell, *Family Law, Access to Justice, and Automation*, "Macquarie Law Journal", 2019, 19, p. 103.

[3] D. Gingras, J. Morrison, *Artificial Intelligence and Family ODR*, "Family Court Review" 2021, 59, p. 227.

[4] S. Greenstein, *Preserving the rule of law in the era of artificial intelligence (AI)*, "Artificial Intelligence and Law" 2022, 30, p. 291.

many lawyers simply ignore it. Still, one cannot deny the existence of a group with a hostile demeanour, or at least a lukewarm attitude, characterised by mistrust or even an intentional battle against AI, which usually takes the form of allegations of the invention "dehumanising the law"[5]. At this point, it is worth quoting J.H Sommer, who noted that the technological progress reflected in legislation is driven by technophilia rather than technophobia, which focuses primarily on protecting privacy[6]. However, discussing ethical concerns should not distract jurists from other problems. For example, the development of AI in law can be seen as a globally progressing phenomenon. At the same time, the reality is far more complex. The progress is strongly contingent upon national borders, namely the jurisdiction within which AI operates[7]. Some scholars also believe that the approach towards AI in law, affecting the development work, can vastly differ in common law and civil law legal systems[8].

Apart from legal systems, the policies relating to the application of AI can vary depending on the part of the legal system and the recipients. Some governments, such as the Netherlands, already use AI systems for video surveillance and fraud prevention. In contrast, the Dutch judiciary is still organised around paper files and its large central digitisation program was cancelled because of a lack of progress[9]. As demonstrated by this example, the development of AI in the legal system at the institutional level is firmly bound by the countries' policies, let alone the financial support and synergy with the business practice. Looking through the prism of the government and social interest, the rapidly progressing technology can address one of the most critical postulates of the democratic state of law–improving access to justice. However, the legal public sector has been divided about speeding up the evolution, although various jurisdictions were assessed as ready to enter the era of digital innovation, which could mean the implementation of eTrials, online dispute resolution services, and digitised file management[10]. Sadly, the official political and

[5] US Supreme Court, 2023 Year-End Report on the Federal Justice, https://www.supremecourt.gov/publicinfo/year-end/2023year-endreport.pdf [access: 12.08.2024]. The postulate of monitoring the "dehumanising" factor of AI in family law was expressed by J.-B. Racine, who focused on arbitration. J.B. Racine, *Arbitrage et intelligence artificielle*, (Arbitration and artificial intelligence), "Revue de l'arbitrage" 2019, 4, p. 1025.

[6] J.H. Sommer, *Against Cyberlaw*, "Berkeley Technology Law Journal" 2000, 15/3, p. 1161.

[7] S. Greenstein, *op. cit.*, p. 292.

[8] D. Guével, *Intelligence artificielle et décisions juridictionnelles*, "Quaderni" 2019, 98, p. 52.

[9] D. Kolkman, F. Bex, N. Narayan, M. van der Put, *Justitia ex machina: The impact of an AI system on legal decision-making and discretionary authority*, "Big Data & Society" 2024, 11/2, p. 2.

[10] N. Papavasilou, *The Vicissitudes of Law in the Digital Age: Automation as a Mechanism for Justice in Family Law*, LLB Dissertation Article 2020, https://www.researchgate.net/publication/346376617 [access: 16.09.2024].

legal debate on applying AI-based tools in the national legal systems is marked chiefly by the reluctance to enact extensive reforms, leaving urgent questions to a handful of specialists or letting things take their course[11]. It is not the first time in history that ground-breaking changes could be initiated and tested by the private legal sector, driven by economic profits and seeking a way to stand out from the competition. Notably, the *AI Activity in UK Businesses Report*, published in January 2022, showed that the IT and telecommunications (29.5%) and legal (29.2%) sectors had the highest adoption rate of AI technologies among UK private businesses[12].

Notwithstanding the motives and centres leading to the expansion of the AI role in law, one cannot disagree with R. Susskind, a British legal and IT scholar who has been exploring AI in law for more than forty years and correctly predicted many substantial changes. He writes, "Over the past decade, we have seen a shallow, steady change and are now seeing signs of more explosive movement. We are at the knee of the curve"[13]. Susskind's fundamental work, incidentally, suggests plenty of options for the legal profession in the private sector at some point in the future, giving little attention to AI in family law.

2. AI and its peculiar relationship with family law

I can risk a statement that among all parts of private law, family law is the most exposed to friction between a broad cross-section of personal worldviews. Although the definition of family law and its body of laws differ depending on the country[14], its role is to regulate family matters and domestic relations, such as marriage, civil partnership and cohabitation, divorce and dissolution of the partnership, adoption, surrogacy, maternity and paternity, child residency and contact with a child, parental

[11] However, it must be added that some governments understand the role of AI but focus on its economic aspects. For example, the House of Commons published the *Industrial Strategy White Paper* in 2017, which identified AI as a key driver of enhancing the competitiveness and productivity of the UK economy. C. Brooks, C. Gherhes, T. Vorley, *Artificial intelligence in the legal sector: pressures and challenges of transformation*, "Cambridge Journal of Regions, Economy and Society" 2020, 13, p. 136.

[12] A. Evans, A. Heimann, *AI Activity in UK Businesses: An assessment of the scale of AI activity in UK businesses and scenarios for growth over the next twenty years*, January 2022, A report by Capital Economics for the Department for Digital, Culture, Media, and Sport, 3, https://assets.publishing.service.gov.uk/media/61d87355e90e07037668e1bd/AI_Activity_in_UK_Businesses_Report__Capital_Economics_and_DCMS__January_2022__Web_accessible_.pdf [access: 14.08.2024].

[13] R. Susskind, *Tomorrow's Lawyers: An Introduction to your Future*, Oxford University Press, 2024, p. VIII.

[14] For example, in Japan, "family law" denotes Books Four and Five of the Civil Code, which regulate relative law and succession law, respectively.

and children's rights. A family law system, including its discussed reforms, should be capable of meeting the needs of contemporary society[15]. However, there is no doubt that there are no uniform needs in family matters, as human relationships are inseparably intertwined with a wide range of societal opinions, attitudes, norms, and often complicated psychological issues[16]. Therefore, it is expected from family law lawyers that apart from purely legal knowledge, they should also possess 'life skills' and be able to read a vast spectrum of human emotions and translate them into optimal decisions, as family law cases usually occur during the most challenging periods in peoples' lives or require careful consideration of the children's best interest. Having been deeply immersed in someone else's family problems, family law lawyers are naturally compelled to make judgements about people's private lives. F. Bell aptly stated that these factors cause the automation of family law to be very complex[17].

Another problem with applying AI in family law is the general nature of this part of private law, which reflects the societal changes with an inevitable delay. Family law has a profound role in shaping society, yet the evolution of societal views equally exerts an overwhelming influence on the content of family law. In the late 19th and 20th centuries, this can be seen vividly through the emancipation of women, which entailed introducing formal equality between men and women in families[18]. Recently, the support for same-sex marriages (and civil partnerships) resulted in recognising this relationship in many legal systems across European countries[19]. Regarding technological progress and its impact on family law, assisted reproduction is probably the best example of sluggish legislative action. 25 July 1978 marked the birth of Louise Brown, in England, the first live-born child as a result of IVF treatment. Since then, assisted reproduction technology has advanced at an incredible rate, and its implications for family law have been noted around the world[20]. However, despite the legislative attempts to regulate this matter through interim acts, such as the Surrogacy Arrangements Act 1985[21], it wasn't until 1990 that the UK

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[15] K. Macfarlane, *Thomson's Family Law in Scotland*, Bloomsbury Professional 2023, p. 6.

[16] E. Brank, D. Linda, D, *The Psychology of Family Law*, NYU Press Scholarship 2019.

[17] F. Bell, *op. cit.*, p. 109.

[18] M. Minow, *Forming underneath everything that grows: toward history of family law*, "Wisconsin Law Review" 1985, 4, pp. 819–898.

[19] K. Waaldijk, What First, *What Later? Patterns in the Legal Recognition of Same-Sex Partners in European Countries*, [In:] M. Digoix (Eds.), *Same-Sex Families and Legal Recognition in Europe*, Springer Open 2020, pp. 11–44.

[20] W. Wadlington, *Artificial Conception: The Challenge for Family Law*, "Virginia Law Review" 1983, 69/3, pp. 465–514.

[21] Surrogacy Arrangements Act 1985 (c. 49).

Parliament introduced the Human Fertilisation and Embryology Act 1990, which brought changes in all three family systems within the UK[22]. The twelve years between the birth of the first "IVF baby" in England and the first UK act governing assisted reproduction can be an instructive lesson for lawyers that the successful use of new technology in family-related matters could remain an obscure legal problem in family law system for more than a decade.

One of the most common arguments against AI in family law is the fear that machines, unable to understand or read human emotions, no matter how far advanced technology could be, will arbitrarily decide people's private lives. This is why the proponents of AI underline the possibility of designing a "safety valve" by keeping "humans in the loop", namely maintaining the role of human expert knowledge in the process and the power to overrule the decision of AI to avoid biases in legal practices[23].

3. "Wave 1" and "Wave 2" of AI development in family law

Similarly, as with assisted reproduction, the use of AI in family law preceded the legislation on this matter and was initiated by the private sector, primarily looking for business cost optimisation through adopting technological novelties. However, contrary to the first "IVF baby", it is challenging to identify the first successful adoption of AI in family law. The main reason is that there is no universally accepted definition of AI. In the context of legal practice, A. Zafar wrote that AI "can be succinctly characterised as a technological innovation designed to automate processes and tasks that have historically necessitated human cognitive abilities"[24]. Another definition created by the OECD says that an Artificial Intelligence (AI) System is "a machine-based system that can, for a given set of human-defined objectives, make predictions, recommendations, or decisions influencing real or virtual environments"[25]. Given this definition, the OECD referenced Cognilytica's "Seven Patterns of AI", namely hyper-personalisation, conversation and human interaction, pattern and anomaly detection, recognition, goal-driven systems, predictive analysis and decision support, and autonomous systems[26]. Each

[22] Human Fertilisation and Embryology Act 1990 (c. 37).

[23] A. Zafar, *Balancing the scale: navigating ethical and practical challenges of artificial intelligence (AI) integration in legal practices*, "Discovering Artificial Intelligence" 2024, 27.

[24] A. Zafar, *op. cit*.

[25] OECD, *Recommendation of the Council on Artificial Intelligence*, 2019, https://legalinstruments.oecd.org/en/instruments/OECD-LEGAL-0449 [access: 12.08.2024].

[26] Cognilytica, *The Seven Patterns of AI*, 2019, https://www.cognilytica.com/2019/04/04/the-seven-patterns-of-ai [access: 12.09.2024].

pattern can effectively support any legal actions, equally in the public and private sectors, considering their policies and needs. For example, pattern and anomaly detection can help state institutions discover frauds or provide better surveillance of road safety and law businesses to help assess risk management or find mistakes in legal documents, as the machines are much better and faster at processing the massive amount of data and finding patterns or anomalies[27]. As for family law, at least four AI patterns could streamline particular processes at institutional and business levels: predictive analysis and decision support, recognition, goal-driven systems, and conversation and human interaction.

Predictive analysis and decision support can be used on an institutional level to assist in passing judicial decisions or help lawyers show their clients the probability of securing their claims during litigation. Recognition can provide better reviewing of documents for legal procedure, and to some extent, it is already extensively used for drafting and digitalisation purposes. Goal-driven systems can be adopted to find the optimal solution to a problem, such as scheduling contact of a parent with their child after the divorce or projecting the alimony in the situation of a changing income. Finally, conversation and human interaction can provide basic legal aid online. The list of possible utilisations of AI in family law is incomplete, as it can also include tools that facilitate mediation and settlement negotiations on dispute resolution platforms[28]. The so-called Online Dispute Resolution ("ODR") is a rapidly growing legal technology that courts use to promote Alternative Dispute Resolution ("ADR") through online negotiation, mediation, or arbitration. In this case, AI takes over the financial calculations and suggests options, giving the parties more space for online mediation and negotiation by reducing the potential points of disagreement[29].

Notably, the AI tools used for predictive analysis and decision-making have a completely different technological basis than those used for conversation and human interaction. Thus, they are built on somewhat similar assumptions that they are both AI but face different practical and theoretical problems. For example, in the book about AI capacities, A. Narayanan and S. Kapoor write that predictive analysis

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[27] E. Şengönül, R. Samet, Q. Abu Al-Haija, A. Alqahtani, B. Alturki, A.A. Alsulami, *An Analysis of Artificial Intelligence Techniques in Surveillance Video Anomaly Detection: A Comprehensive Survey*, "Applied Sciences" 2023, 13(8), 4956.

[28] B. Ancel, *L'intelligence artificielle au XXIe siècle: outil juridique fiable ou amplificateur d'injustices?* (Artificial Intelligence in the 21st Century: Reliable Legal Tool or Amplifier of Injustice?), 2024, https://www.actu-juridique.fr/ntic-medias-presse/lintelligence-artificielle-au-xxie-siecle-outil-juridique-fiable-ou-amplificateur-dinjustices/#:~:text=En%20droit%20de%20la%20famille,attestations%20ou%20de%20documents%20financiers [access: 20.08.2024].

[29] D. Gingras, J. Morrison, *op. cit.*, p. 229.

is the most deceitful part of the entire "AI world", and they even compare it to "snake oil". Their criticism towards AI is summarised in chapters two and three, which can also be a valuable lesson for family law[30].

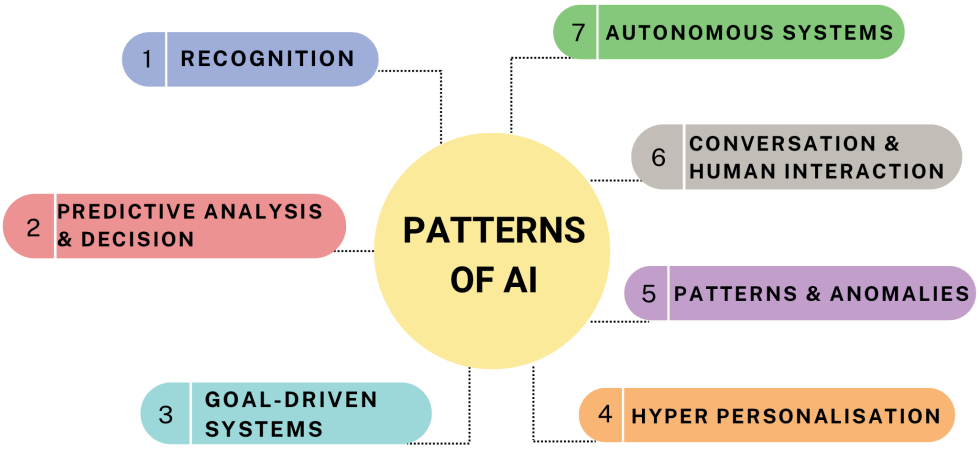

Figure 1: "The Seven Patterns of AI" according to Cognilytica. Some of them are already adopted in family law practice, e.g., recognition, and some are undiscovered fields that await new ideas to support the family law system – source: Cognilytica.

Given such promising opportunities that the application of AI in family law can provide, it is hard to disagree with N. Papavasiliou and O. Bodemer that the use of technology as a facilitator of justice in family law remains a largely obscure topic, and there are many knowledge gaps[31]. This situation might be considered undesirable for legal scholars and practitioners, but it is especially detrimental to the parties to the family dispute. Looking through the prism of the clients, most people are suddenly forced to explore family law with limited or no legal assistance. The emergence of online AI assistants to answer basic legal queries was expected to change this situation. However, studies show that the existing virtual programs are often complex for a non-specialist to navigate, let alone explain complicated matters suited to the client's actual knowledge[32].

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[30] A. Narayanan, S. Kapoor, *AI Snake Oil: What Artificial Intelligence Can Do, What It Can't, and How to Tell the Difference*, Princeton: Princeton University Press 2024, chapters 1–3.

[31] N. Papavasilou, *op. cit.*, p. 3; O. Bodemer, *AI and Family Law in the European Union: Assessing the Impact, Ethical Dimensions, and Perceptions in Divorce Proceedings*, 2024, https://www.researchgate.net/publication/377931253 [access: 12.08.2024].

[32] F. Bell, *op. cit.*, pp. 131–132.

Returning to the use of AI in family law, the private sector had set the tone for testing and exploring the opportunities many years ago. However, despite the early fascination of this topic in the 1990s, reflected even by the creation of the first applications, like SplitUp in Australia[33], in the early 2000s, some scholars expressed their frustration that they were "not able to cite any fully unqualified examples of 'true AI' that have been successfully deployed in the 'real world' of law practice". Although they admitted that their criticism might have been too harsh, as AI and Law researchers continue to work enthusiastically and some AI applications to legal practice were successful, they also stated that follow-up on those experiments was limited. None of the listed examples of AI applications directly concerned family law[34].

Possibly, an answer for this limited expansion was the level of technological saturation in the legal environment. It wasn't until the late 2000s that technology allowed for streamlining the intake processes, remote access to documents, and digital filing systems. W. Brooks argues that by that time, the practitioners had mainly performed those duties with limited assistance from technology[35]. The advancement wouldn't be possible without improved internet access, higher download and upload speeds, rising user awareness and number of users in general, and the popularisation of cloud computing. One of the phenomena of that time was the rapid spread of eDiscovery among law firms and corporations to identify, collect, and produce electronic information for legal cases[36].

Reflecting on the situation in the late 2000s might seem vastly outdated compared to the status of AI tools in 2024. However, the actual change in expectations towards AI in law increased as late as a few years ago, primarily due to a new wave of machine learning and natural language processing techniques[37]. Due to this fact, scholars and practitioners didn't profoundly discuss the possible applications of ad-

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[33] A. Stranieri, J. Zeleznikow, *SPLIT-UP Expert system to determine Spousal Property distribution on Litigation in the Family Law Court of Australia*, [In:] A. Adams, L. Sterling, *AI'92-Proceedings of the 5th Australian Joint Conference on Artificial Intelligence*, 1992, pp. 51–56.

[34] A. Oskamp, M. Lauristen, *AI in law practice? So far, not much*, "Artificial Intelligence and Law*"* 2002, 10, p. 227.

[35] C. Brooks, *Artificial Bias: The Ethical Concerns of AI-Driven Dispute Resolution in Family Matters*, "Journal of Dispute Resolution" 2022, 2, p. 5.

[36] J. Krause, *E-discovery gets real*, "ABA Journal" 2007, 3/2, pp. 44–55.

[37] D. Kolkman, F. Bex, N. Narayan, M. van der Put, *op. cit.*, p. 2; S. Larsson, *The Socio-Legal Relevance of Artificial Intelligence*, "Droit et société" 2019, 103/3, p. 575; H. Surden, *Chapter 8: Machine learning and law: An overview*, [In:] *Research Handbook on Big Data Law*, Edward Elgar Publishing 2021, pp. 171–184; A. Porębski, *Machine Learning and Law*, [In:] B. Brożek, O. Kanevskaia, P. Pałka (Eds.), *Research Handbook on Law and Technology*, Edward Elgar Publishing 2023, pp. 450–467.

vanced machine learning in family law, with some notable exceptions[38]. This knowledge gap is also reflected in legal practice. Whilst using some AI-based tools by family lawyers or courts could hardly be perceived as a ground-breaking innovation nowadays, the successful adoption of advanced machine learning-based programs is in its infancy. Having transitioned from the era of computers and the internet as a curiosity to the ordinary digital generation[39], it is hard not to recognise the "periodisation" suggested by L. Smith and E. Frazer, who divided the stage in the evolution of technology in the family law context into "Wave 1" and "Wave 2". "Wave 1" relied on the selective adoption of advanced technologies to modernise and improve family law practice. In contrast, "Wave 2" includes "ubiquitous legal services and advances fuelled by technologies that include artificial intelligence, machine intelligence, cognitive computing, natural language processing, facial recognition, and bots"[40]. There is no guarantee that "Wave 2" will pass without any setbacks or in the envisaged shape, as people used to get ahead of themselves (often overly too optimistic), predicting the widespread adoption of AI. It is also essential to add that both "Waves" are not entirely separate, as they don't have any particular ascension point. Some family law systems might still struggle to fully embrace "Wave 1" at the state level while taking bold private initiatives in "Wave 2". Conversely, the swift accomplishment of "Wave 1" goals might not entail the AI expansion-oriented initiatives in "Wave 2", albeit, in my opinion, such a scenario is unlikely considering the advanced machine learning development speed.

Additionally, research proves that "Wave 1" and "Wave 2" were significantly impacted by COVID-19, which served as "the great accelerator" in the existing global trend towards embracing computer technologies in people's everyday lives. The global pandemic affected the increased use of, among others, machine learn-

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[38] J. Zeleznikow, *The benefits and dangers of using machine learning to support making legal predictions*, "WIREs Data Mining and Knowledge Discovery" 2023, 13/4, pp. 1–24; S. Lopez-Larrosa, V. Sánchez-Souto, D.E. Losada, J. Parapar, A. Barreiro, A.P. Ha, E.M. Cummings, *Using Machine Learning Techniques to Predict Adolescents' Involvement in Family Conflict*, "Social Science Computer Review" 2023, 41/5, pp. 1581–1607; S. Goel, S. Roshan, R. Tyagi, S. Agarwal, *Augur Justice: A Supervised Machine Learning Technique To Predict Outcomes Of Divorce Court Cases*, *Fifth International Conference on Image Information Processing (ICIIP)*, Shimla, India, 2019, pp. 280–285; P.S. P. Solanki, Y.K. Solanki, *Revolutionizing Divorce Case Prediction in India: A Machine Learning Approach to Save Marriages and Enhance Decision Accuracy*, "International Journal of Engineering and Management Research" 2023, 13/2, pp. 232–240; A. Carlson, *Imagining an AI-supported self-help portal for divorce*, "Judges' Journal" 2020, 59/1, pp. 26–30.

[39] R. Susskind, *op. cit.*, p. 171.

[40] L.S. Smith, E. Frazer, *Child Custody Innovations for Family Lawyers: The Future Is Now*, "Family Law Quarterly" 2017, 51 (2/3), p. 198.

ing and AI. Although this process was contested later to some extent, and no long-term outcomes are certain, COVID-19 was a significant psychological factor that forced many people and businesses sceptical about the new technologies to adopt it at work[41]. As for family law, many works are presenting the impact of COVID-19 on providing legal aid to families, including temporary measures, but none of them concentrate on the broader aspect of technological advancements in family law practice that became a new standard[42].

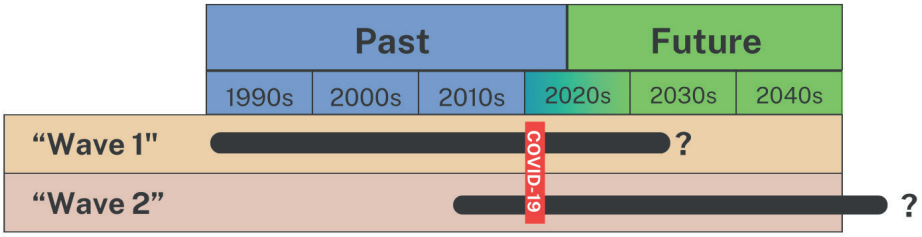

Figure 2: The simplified timeline of AI "Waves" in family law. "Wave 1" began in the early 1990s and mainly progressed in the developed countries during the late 2000s and the early 2010s. In some places, mostly the developing economies, it is still debatable as to when it will be fully embraced. On the other side, it is challenging to pinpoint the beginning of "Wave 2", as some countries, such as Australia, witnessed the first complicated algorithms as soon as in the early 1990s (SplitUP), but the global revolution came with the emergence of advanced machined learning. Source: Own study.

In this context, "Wave 2" in family law, and law in general, might be an inseparable part of R. Brownword's "Law 3.0" concept, in which machines take over various activities and functions previously performed by humans. His distinction between the normative instruments, such as legal rules in family law, and non-normative ones, like the design of AI products or processes they are involved in, is fundamental because normative instruments will continue to regulate obligations, whilst non-normative instruments will only dictate whether something can

[41] J. Amankwah-Amoah, Z. Khan, G. Wood, G. Knight, *COVID-19 and digitalization: The great acceleration*, "Journal of business research" 2021, 136, p. 608.

[42] K. Richardson, A.K. Speed, C. Thomson, L.R. Coapes, *COVID-19 and the family courts: key practitioner findings in children cases*, "Journal of Social Welfare and Family Law" 2021, 43/4, pp. 414–438; N. Lynch, U. Kilkelly, *"Zooming In" on Children's Rights During a Pandemic: Technology, Child Justice and COVID-19*, "The International Journal of Children's Rights" 2021, 29/2, pp. 286–304; A.L. Bannon, D. Keith, *Remote court: principles for virtual proceedings during the COVID-19 pandemic and beyond*, "Northwestern University Law Review" 2021, 115/6, pp. 1875–1920; L.D. Elrod, *Review of the Year 2020 in Family Law: COVID-19, Zoom, and Family Law in a Pandemic*, "Family Law Quarterly" 2020, 54, pp. 281–324.

be done or not[43]. Although it might sound like speculation, it is not impossible to imagine that future AI-based tools will be linked with divorced parents' schedules to automatically set up the time of contact with their child on a more dynamic and flexible basis. Going a bit further, AI could also reshape some present-day family law concepts, such as the child maintenance system. It could be replaced by applications that access parents' private bank accounts and make payments and transfers automatically to rationalise expenses without relying on a rigid monthly budget[44]. AI in family matters will not operate beyond existing legal norms, forming an alternative family law system. The aim of AI is to automate some processes to increase efficiency, speed, and accuracy, and the transition from actual models can happen due to growing pressure from business[45].

There is another critical dimension of introducing advanced AI in family law. B. Barraud noted that algorithms forming AI could be perceived as sources of law since the law is defined as what effectively shapes human behaviour in society, even if society becomes a digital society administered by "sophisticated algorithms". AI will exert normative effects in any case, which could be comparable to public laws and regulations. Thus, before fully embracing "Wave 2", lawyers, in this case, family lawyers, should carefully reconsider their object of study, practices, and habits[46]. Even setting aside the problem of sources of law, AI and automated systems could have ethical consequences if they change their role from providing legal information to giving legal advice[47]. It is recommended, thus, that the discussion on adopting more advanced AI in family law should not overlook legal theory and professional ethics[48]. Considering multiple layers of AI's future involvement, N. Aiba argues that the legal community will highlight the importance of the "legal mind" in any technological developments involving changes in the law[49].

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[43] R. Brownsword, *Law 3.0*, Routledge 2021, p. 5.

[44] Currently, it is hard to imagine this due to severe risks to privacy and individual rights, but if parents agree to adopt new systems, they might become a part of the settlement agreement.

[45] C. Brooks, C. Gherhes, T. Vorley, *op. cit.*, p. 143.

[46] B. Barraud, *op. cit.*, p. 57.

[47] J. Evans, A. Ndegwa, *Use of Technology in the Family Justice System: Annotated Bibliography, Department of Justice Canada*, 2022, p. 17, https://www.justice.gc.ca/eng/rp-pr/jr/utfjsab-utsjfba/index.html [access: 15.08.2024].

[48] The use of AI-based tools can also have ethical consequences if they provide misleading or incorrect legal information, e.g. outdated legislation or case law.

[49] N. Aiba, *Jinkō chinō wa hōritsuka o kuchiku suru ka? (Does Artificial Intelligence create a jurist?)*, "Hōn" 2020, 189, https://www.sn-hoki.co.jp/articles/article236400 [access: 15.08.2024].

4. Brand new concept or sluggish progress?

Having identified patterns of possible adoption of AI in family law and two critical "Waves" of AI development in the last decades, it is possible to assess the existing or projected tools supporting the family justice system. A. Saied-Tessier grouped them into three more prominent categories, which, to some extent, can reflect family law practice from three different perspectives: clients, family lawyers, and judges[50]. The advantage of this categorisation is that it significantly expands on examples of automation in family law presented by F. Bell, who also separated Online Dispute Resolution[51]. Despite the long-established and visible trends in scholarly works to treat ODR as an independent issue[52], its emergence and popularisation wouldn't be possible without the diffusion of new technologies, namely the aforementioned "Wave 1". There are some valid arguments that Online Dispute Resolution should be treated as a part of the decision-making area, as its role is to support the family justice system at the same level as the judiciary. Notwithstanding the differences in views, Saied-Tessier's categorisation might be considered a valuable tool for assessing the pace of development of AI in family law.

Table 1: The outlined areas and their potential to create new AI tools or adapt existing tools in the family justice system. Source: Saied-Tessier, A., 7.

Efficiencies in processing and administrative tasks	**Improving family experiences**	**Supporting decision-making**
Document review	Language translation	Online dispute resolution
Drafting legal documents and summaries for professionals and parties	Virtual assistants	Predictive analysis
Case management	Legal advice	Risk assessment

Looking at the category of efficiencies in processing and administrative tasks, there are three core activities that AI can already accurately support in the summer

[50] A. Saied-Tessier, *AI in the family justice system: Briefing, Nuffield Family Justice Observatory*, 2020, https://www.nuffieldfjo.org.uk/news/briefing-paper-ai-in-the-family-justice-system [access: 15.08.2024].

[51] F. Bell, *op. cit.*, pp. 114–123.

[52] M.H. Conley Tyler, M.W. McPherson, *Online Dispute Resolution and Family Disputes*, "Journal of Family Studies" 2006, 12/2, pp. 165–183; K. Mania, *Online dispute resolution: The future of justice*, "International Comparative Jurisprudence" 2015, 1/1, 76–86; M. Maclean, B. Dijksterhuis (Eds.), *Digital family justice: from alternative dispute resolution to online dispute resolution?*, Bloomsbury Publishing 2019.

of 2024. Although there is no dedicated tool to review, draft, and summarise the legal documents in family law, the present-day market offers a broad selection of software such as Casetext, Claude, Law ChatGPT (based on the GPT-4.0 engine), ErnieBot, Latch, LawDepot, LegalFly, LexMachina, Llama, Microsoft Copilot, NetDocuments, Omnidocs, OneAdvanced, Relativity, and SpellBook[53]. This list is not exhaustive, as many programs or platforms are available on the market, and the situation is dynamic since some big companies with considerable capital declared developing their software or are at the advanced testing stage. For example, Thomson Reuters released CoCounsel Drafting in the US on 15 July 2024, and it will be available in the UK and Canada later this year[54]. Some legal IT industry experts underline that 2023 was "the bumper year of generative AI hype", which led some innovative companies to build their own internal AI products. The same opinions assess that firms became familiar with the strengths and limitations of generative AI in 2024, and there are predictions that by the end of this year, "law firms will predominantly access large language models as add-ons within their existing technology stack or through Microsoft Copilot"[55].

Similar to reviewing, drafting, and summarising legal documents, abundant AI tools supporting case management can be used in family law. The list includes Casedoc, Chonologica, Decisions, Disco, LawVu, SmartAdvocate, Uncover, and many others. Some companies and institutions have decided to build their own internal AI products, and some rely on the existing external software, which makes the market increasingly competitive[56].

The reason behind mentioning the existing tools is not to advertise them or identify the most popular AI-based software in family law practice but to demonstrate the scale of advancement in recent years, which is a direct derivative of embracing "Wave 1" and experiencing the effects of the early "Wave 2". The family law system can enjoy the advantages of adopting AI to increase efficiency in performing various administrative tasks or processing legal documents, as automated processes

[53] The AI tools, such as ChatGPT and Claude, were not explicitly developed for a legal environment but can be used to address legal questions. Their accuracy still needs to be tested.

[54] Thomson Reuters News about CoCounsel Drafting, https://www.thomsonreuters.com/en/press-releases/2024/july/thomson-reuters-unveils-groundbreaking-cocounsel-drafting-tool.html [access: 20.08.2024].

[55] P. Duffy, *Legal Tech Trends 2024: 8 Expert Opinions*, 2024, pp. 9–10, https://get.henchman.io/hubfs/Legal%20tech%20trends%202024%20Report.pdf [access: 20.08.2024].

[56] Y. Marquis, T.O. Oladoyinbo, S.O. Olabanji, O.O. Olaniyi, S.A. Ajayi, *Proliferation of AI tools: A multifaceted evaluation of user perceptions and emerging trend*, "Asian Journal of Advanced Research and Reports" 2024, 18/1, pp. 30–55.

can work on huge data 24/7 – something that no human can do[57]. However, the possibility doesn't automatically manifest in reality. According to C.W. Griffin, 80% of any legal enterprise's data is unstructured, leaving room for improvement in the following years[58].

Regarding the second category, improving family experiences, numerous AI-based tools are designed to support clients or lawyers, but their accuracy strongly depends on the case details. No doubt automatised legal translators have rapidly progressed in the last few years, yet their accuracy compared to the sworn translator can still be questioned. For instance, programs like AILingo, BeringAI, DeepL, ChatGPT (based on the GPT-4.0 engine), Relativity, and Reverso can offer quick legal translations at much higher levels of precision than the most popular Google Translate. Yet, they tend to fall short in complicated matters, particularly highly contextual sentences. Additionally, as a scholar deeply immersed in Japanese family law, I can assess that the existing translators can mislead about the true sense of the content of the legal norms or documents and, thus, can be treated only as a support tool. Nevertheless, Japanese is just one example, which cannot prove the translator's incapacity to truthfully convey Asian languages. In the future, we can expect better-designed translators, also in legal matters, especially in the most popular national languages. So far, the Korean-English translator called Papago has tried to blaze the trail, but its quality was rated worse than GPT-4-turbo or even the earlier GPT-3.5-turbo version[59].

Family law requires an exact understanding of the analysed text, including legal terms and human emotions that can be expressed in various ways, such as non-verbal messages. Besides official documents, family lawyers must listen to private testimonies to evaluate the family situation. Given the noticeable number of international couples communicating with each other or their children in different languages[60], detailed knowledge about the family and personal situation cannot depend on auto-

[57] Some people argue that automated processes can make mistakes despite their ability to process data without interruptions, but human work is prone to the same issues.

[58] C.W. Griffin, *Legal Tech Trends 2024: 8 Expert Opinions*, 2024, pp. 4–6, https://get.henchman.io/hubfs/Legal%20tech%20trends%202024%20Report.pdf [access: 20.08.2024].

[59] S. Baek, S. Lee, J. Seok, *Strategic Insights in Korean-English Translation: Cost, Latency, and Quality Assessed through Large Language Model*, *Fifteenth International Conference on Ubiquitous and Future Networks (ICUFN)*, Budapest, Hungary, 2024, pp. 551–553.

[60] For example, in the United States, about 68 million people, roughly 20% of the entire country's population, do not speak English as their first language at home. Scholars have explored multilanguage parenting as a social phenomenon. G. Melzi, N. Prishker, V. Kawas, J. Huancacuri, *Multilingual Parenting in the United States: Language, Culture and Emotion*, [In:] A. Stavans, U. Jessner (Eds.), *The Cambridge Handbook of Childhood Multilingualism*, Cambridge: Cambridge University Press 2022, pp. 515–536.

matic translation, which cannot grasp the significance of words and non-verbal messages at this stage. Conversely, clients seeking legal information through automated translations could find incomplete or false information. Thus, despite the rapid pace of development of AI-based legal translations, family lawyers should consider employing reasoning based on them as high-risk assumptions[61], mainly due to the inability to grasp subtleties and cultural nuances[62]. This raises an essential question – is AI-based translation useful at all if a specialised human translator will probably always be more accurate than machines and one step ahead, despite the slower work?

Other methods of improving family experiences by adopting AI-based tools in the family law system are virtual assistants and programs offering legal advice. One might consider both as identical functions, but virtual assistants are usually provided by firms or courts as chatbots embedded within websites to help find information and forms or navigate legal processes. Beyond informing litigants about facts, generative AI can offer them legal advice or cite relevant cases to build a line of reasoning. Scholars mostly agree that AI's capacity to provide accurate legal aid depends on a sufficiently large set of existing legislation and case law[63].

Contrary to the tools designed to improve administrative and office task efficiencies, a limited number of applications based on generative AI can be used to obtain advice in family law cases. Still, in recent years, the market started to offer new programs such as Bard (present-day Gemini), Bing, Casetext, CaseMine, ChatGPT (based on GPT-3.5 and GPT-4.0 engines), ChatLegal, DivorceAI, HarveyAI, LawDroit, LegalFly, Nova, Nessa, and Unwildered. There is no comprehensive research on their accuracy, especially in complicated cases, yet personal testing revealed that chatbots can answer simple family law legal questions, such as principles governing divorce, division of matrimonial property, and deciding about the child's residence and contact in Scottish family law[64]. The opinions on the quality of generative AI's

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[61] Ł. Biel, J. Scott, J. O'Shea, *Chapter 14: Legal translator profiles*, [In:] G. Massey, M. Ehrensberger-Dow, E. Angelone (Eds.), *Handbook of the Language Industry: Contexts, Resources and Profiles*, 2024, pp. 321–348.

[62] A.M. Moneus, Y. Sahari, *Artificial intelligence and human translation: A contrastive study based on legal texts*, "Heliyon" 2024, 10/6, pp. 1–14. The authors compared the automated and human (professional) translations, using the legal texts in Arabic. The results were slightly better for human translators, especially in finding high-context and nuances.

[63] A. Saied-Tessier, *op. cit.*, p. 8.

[64] Only some tests have been conducted on answering non-legal questions, which proved that AI models can be wrong even in simple tasks and tend to give incorrect answers rather than refuse to answer. L. Zhou, W. Schellaert, F. Martinez-Plumed, Y. Moros-Daval, C. Ferri, J. Hernandez-Orallo, *Larger and more instructable language models become less reliable*, "Nature" 2024.

answers are divided[65], but F. Ryan and L. Hardiethe's tests showed significant progress between the GPT-3.5 and GPT-4.0[66]. Since generative AI in family law was almost non-existent a few years ago, and ChatGPT was launched no earlier than November 2022, less than two years ago, the technology has advanced incredibly, and its accuracy can be expected to increase over time.

Finally, the last category, supporting decision-making, seems to be the least developed part of AI adoption in family law, arguably with one exception – Online Dispute Resolution. The article's purpose is not to outline the objectives or initiate a discussion on the ethics of this method of solving family conflicts. However, it is essential to mention that scholars agree that ODR has started to infiltrate family law and family Alternative Dispute Resolution processes[67]. The potential of ODR in family law is vast, especially in cross-border issues[68]. The rapid development of AI technology in recent years has affected ODR[69]. Still, it is challenging to state that ODR is a new invention. It can be traced back to the mid-1990s, and its popularity was linked to such rapidly expanding fields as internet development, e-commerce, and alternative dispute resolution[70]. However, it wasn't until "Wave 1" was closer to its end that ODR became more popular among family lawyers. The benefits of ODR were seen in the United States, where family courts around the country have embraced it. For example, the Judicial District Court of Clark County in Las Vegas was mentioned by M. Huck for instituting an ODR platform to facilitate divorces[71].

The global pandemic profoundly affected the provision of legal aid and the solving of family disputes. J. Evans and A. Ndegwa write that Canadian family courts used several different technologies, including ODR, to help keep courts operating in

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[65] Y. Khan-Gunns, *ChatGPT in family law: an AI companion or adversary? Part 1-2*, "Family Law" 2023, 53 (Sep), 54 (Nov), pp. 1086–1093, pp. 1358–1366.

[66] F. Ryan, L. Hardie, *ChatGPT, I have a Legal Question? The Impact of Generative AI Tools on Law Clinics and Access to Justic*e, "International Journal of Clinical Legal Education" 2024, 31/1, pp. 173–175.

[67] A.J. Schmitz, L. Wing, *Beneficial and Ethical ODR for Family Issues*, "Family Court Review" 2021, 59/2, p. 256.

[68] N. Alexander, *Ten trends in international mediation*, "Singapore Academy of Law Journal" 2019, 31, pp. 405–447.

[69] H. Alessa, *The role of Artificial Intelligence in Online Dispute Resolution: A brief and critical overview*, "Information & Communications Technology Law" 2022, 31/3, p. 327.

[70] N. Ebner, J. Zeleznikow, *No Sheriff in Town: Governance for Online Dispute Resolution*, "Negotiation Journal" 2016, 32, p. 298.

[71] M.M. Huck, *The Value of Online Dispute Resolution in Family Law*, "International Journal of Online Dispute Resolution" 2020, 6/1, pp. 54–55.

2020[72]. During that time, ODR theoretically had a unique chance to secure a noticeable market and institutional share in any country. However, besides reinforcing its position, it is hard to state whether the family justice system has witnessed a significant increase in ODR use. Despite some optimistic statements based on observations in other areas of law, there is no quantitative research specifically mentioning numbers in family law[73].

The list of existing AI-based tools or platforms in ODR includes, among others, Divorceify, Equitable Mediation, Family Winner, ItsOverEasy, Modria, OurDivorceAgreement, OurFamilyWizard, SmartSettle, SplitUp, and Up to Parents. Since the efficiency of AI in ODR cannot be solely assessed based on the outcome of the case, as it depends strongly on the arrangements between parties, it is relevant to reach objective studies to find out the satisfaction rates. An investigation of ODR in post-judgment family law cases conducted between November 2020 and August 2021 in Ottawa County, Michigan, revealed that most ODR participants generally favoured it[74]. The experience of people from a single country, the USA, cannot be automatically transferred to all jurisdictions. Yet, it shows that after many years, ODR has become an advanced tool capable of supporting the family justice system for the benefit of the litigants and the judiciary.

Predictive analysis and risk assessment are two elements of the decision-making support category that are still in development. Employing AI to provide professional assessments or indicate the probability that an event will occur under specific factual and legal circumstances is not new, and K.D. Ashley and J. Zeleznikow presented the basic assumptions of this idea in family law, as well as problems encountered during the design of theoretical models[75]. Some courts and children's social care departments already do predictive analytics to assess whether children require social care interventions, and this type of activity can be done even without AI, as it is based on statistical analysis[76]. However, advanced machine learning has opened a new chapter

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[72] J. Evans, A. Ndegwa, *op. cit.*, p. 10. The authors also mention other Canadian courts, such as criminal and civil.

[73] J. Monahan, *Enemy at the Gates: Online Dispute Resolution in the Time of COVID-19*, Directed Research Project: Law in a Post-Pandemic World, 2021, p. 20.

[74] D. Shestowsky, J. Shack, *Online Dispute Resolution for Post-Judgment Family Law Cases. A Report to the Ottawa County, Michigan, Friend of the Court*, 2022, https://ssrn.com/abstract=4173424 [access: 20.08.2024].

[75] K.D. Ashley, *A brief history of…*; J. Zeleznikow, *Can Artificial Intelligence and Online Dispute Resolution Enhance Efficiency and Effectiveness in Courts*, "International Journal for Court Administration" 2017, 8/2, pp. 30–45.

[76] A. Saied-Tessier, *op. cit.*, p. 11.

in this field, accelerating the creation and revision of the algorithms designed to predict the likelihood of future events by analysing a range of demographic, historical, and legal data[77]. Despite the progressing technical capacities, research published by What Works for Children's Social Care proved that the machine learning models built to identify children at risk using local authority social care data did not perform well[78]. There are also more resolute statements that "algorithms will not fix child welfare"[79], which fit into the accusations that private sensitive data will be used wrongfully to produce biased predictions[80]. Additionally, M. Trail's experiment revealed that predictive models can influence child welfare legal decisions, and the legal community must consider how the changing technology and different models will affect their decisions[81].

The current use of predictive analysis and risk assessment in family law is limited, and the existing AI tools, including the best-rated ChatGPT with the GPT-4.0 engine, struggle to process the different sets of data to provide reliable predictions in multi-thread disputes. Opinions on the role of AI in "solving the cases" to fully support the family justice system in the future are divided, mostly due to serious ethical concerns and a lack of confidence in AI's capacities. Yet, predictive analysis can be highly beneficial for practitioners and clients in assessing the potential outcomes to prepare a better strategy and reduce workloads and costs. However, in the search for a more efficient and accessible justice system, the family lawyer cannot forget that AI-based predictive analysis will be primarily based on historical data and will reflect past occurrences, while the role of family law is to determine people's private lives for the future. In a rapidly changing society, also affected by technological progress, people's welfare will be an evolving concept susceptible to human subjective evaluation. Still, looking at the origins of the "AIsation" of law in the 1990s, the era of advanced machine learning to develop predictive analysis and risk assessment in

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[77] M. Blanchard, *Predictive analytics in child welfare: five principles for regulating algorithmic accountability in new wave of predictive models*, "University of Baltimore Law Review" 2022, 51/3, pp. 421–448.

[78] V. Clayton, M. Sanders, E. Schoenwald, L. Surkis, D. Gibbons, *Technical report: Machine learning in children's services: Does it work? What Works for Children's Social Care*, 2020, https://whatworks-csc.org.uk/wp-content/uploads/WWCSC_technical-_report_machine_learning_in_childrens_services_does_it_work_Sep_2020.pdf [access: 22.08.2024].

[79] S.K. Glaberson, *Coding over the cracks: predictive analytics and child protection*, "Fordham Urban Law Journal" 2019, 46/2, pp. 307–363.

[80] R. Edwards, V. Gillies, S. Gorin, H. Vannier-Ducasse, *Pre-problem families: predictive analytics and the future as the present*, "Families, Relationships and Societies" 2024, 13/2, pp. 198–214.

[81] M. Trail, *Child welfare predictive risk models and legal decision making*, "Child Abuse & Neglect" 2024, 154, pp. 8–9.

family law has just begun. The fierce competition in the AI market can result in the invention of tools that offer a panoramic view of the most critical aspects of any case in seconds, leaving discretionary power to the litigants, attorneys, and judges.

5. Conclusions

The application of AI in family law cannot be perceived as a new concept. The paper proves that the first automated processes in this field, which could be understood under the collective term "artificial intelligence", emerged in the late 1980s and became a noticeable innovation in the mid-1990s. The first two decades of AI development in family law were limited to increasing the efficiency of administrative tasks and case management. However, scholars and practitioners in some countries such as Australia grasped the future opportunities. They began to develop more advanced systems, prototypes of goal-driven systems based on algorithms that started to support the family justice system. In parallel, the growing popularity of Alternate Dispute Resolution, still not regulated or institutionalised at the time, helped to come across the idea of solving family issues through mediation and computer technology, giving birth to Online Dispute Resolution. Yet, AI in family law would be a niche if not for the rapid proliferation of computers and access to the Internet during the 2000s and 2010s, which became an integral part of any society. This is how "Wave 1" washed off old habits in legal practice and forced many family lawyers to use automated systems to seek legal information, draft documents, and manage cases. Some lawyers oppose modernisation, but one can rhetorically ask how many don't write e-mails or use automated databases to find relevant case law. "Wave 1," albeit not fully embraced yet, will continue to change family law despite any criticism. Ironically, using AI-based technology in family law has become so customary that many lawyers forget that they already assimilated a vital part of automated processes and consider that "real AI" should offer far more advanced options, such as highly accurate predictive analysis in complicated cases. "Wave 1" was also critical for legal practice because it pushed businesses to take advantage of the technology to cut costs of legal assistance and stand out from the competition.

On the other hand, the digitalisation of society created a new opportunity for the state to provide better access to the family justice system by allocating fewer human resources to cases, which can be solved by automated processing. "Wave 2," envisaging advanced machine learning as a new tool for providing cheaper and faster legal services, became a common interest in family law's private and public sectors.

Unsurprisingly, as illustrated by the available applications and platforms in all three categories of possible adoption of AI in family law, private initiatives outpaced national governments. The multitude of programs to draft, summarise, and analyse legal documents shows the demand for advanced AI tools among family lawyers, and this number will only grow over time.

Nevertheless, the expansion of AI in family law might encounter some setbacks. Family lawyers tend to consider their field distinguished from all the others, stressing the importance of human empathy and legal flexibility that automated processes can't provide, regardless of the complexity of the algorithms and the ability to analyse massive chunks of data in seconds. Additionally, it is stressed that family law often engages a broad set of human emotions to solve multiple legal problems within one case. A divorce between non-conflicted spouses can be the tip of the iceberg, which experienced family lawyers allegedly can grasp contrary to artificial intelligence. The multidimensionality of family law and the need to combine psychological and legal knowledge to offer a solution, frequently an original one, is a principal argument against dehumanised and non-creative artificial intelligence. However, R. Susskind aptly noted that by beating the world chess champion Garry Kasparov in 1997, IBM's Deep Blue system showed that artificial intelligence is not only good at copying solutions but also exploring new ones at an outstanding speed[82]. Additionally, the argument about un-compassionate AI is slowly becoming untrue, as online chatbots such as Wysa, Joyable, and Talkspace offer mental help counselling and enjoy positive user feedback. Many family lawyers might not notice the ground-breaking technological and societal changes, and the entire family law system might fall behind the reality.

From the legal profession's perspective, "Wave 2" of AI in family law has just begun. Advanced machine learning unveiled a new spectrum of possibilities in family law, including automated translations, virtual assistance, online legal aid, predictive analysis, and risk assessment. Although the accuracy of the existing tools is still debatable, it is impossible to deny that they are improving with every failed attempt. In this term, I agree with R. Brownsword, who said, "If smart machines are perceived to outperform human decision-makers and risk-assessors, then it is likely to be just a matter of time before the technologies go beyond advising and assisting humans"[83]. As a natural consequence, family lawyers and judges must adapt. However, no matter

[82] R. Susskind, *op. cit*., p. 259.
[83] R. Brownsword, *op. cit.*, p. 90.

how difficult the future might sound, their existence as legal professionals is not endangered in any scenario. Interestingly, A. Carlson, a seasoned clerk of court and jury commissioner of Orange County, California, expressed his enthusiasm toward combining all the possible patterns of AI application in the family courts to offer people a better justice system. At any moment, he denied the role of humans "in the loop"[84].

So far, the expansion of AI in family law has been relatively sluggish due to the low level of computerisation and access to the internet until the late 2000s. However, after "Wave 1", universally accepted by family lawyers, one can foresee a growing momentum of "Wave 2" with more potent applications based on advanced machine learning. They might be far from ideal projections at the moment, in the late summer of 2024, yet sluggish progress is the least probable thing we can expect.

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[84] A. Carlson, *op. cit.*, pp. 26–30.

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