Family law has historically been an area that many people end up traversing with only limited legal assistance. With increasing interest in artificial intelligence in legal services has come an expanding range of family law applications. Many of these applications have potential to assist clients, lawyers and courts. However, clients will continue to need, and seek out, human lawyers to assist them in family law matters. Especially in the case of vulnerable parties and children, technology may not be an appropriate substitute for human family lawyers.

I  INTRODUCTION

Several years ago, artificial intelligence (AI) was foretold – often in gleeful headlines\(^1\) – to spell the demise of the legal profession. This initial dramatic prognosis has given way to a more nuanced and qualified understanding of how AI is impacting the provision of legal services and how it may affect legal professionalism.\(^2\) Scholarship examining the impact of automation on governmental and administrative decision-making, the rule of law, and legal values, is rapidly developing.\(^3\) At the same time reports, media releases, and other industry and professional literature propound the many uses of AI in law, among other areas.\(^4\) The idea of applying AI to legal problems is not new, having been investigated since the 1970s.\(^5\) Yet the rapid developments of recent years have propelled its applications further and, in so doing, generated new and immediate concerns as well as opportunities.

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\(^{5}\) Whilst there is a recently found interest in this topic amongst the legal community, academic discussions and research in this discipline first occurred upon the birth of the internet two decades ago: see John Zeleznikow, ‘Can Artificial Intelligence and Online Dispute Resolution Enhance Efficiency and Effectiveness in Courts’ (2017) 8(2) International Journal for Court Administration 30, 35 (‘Efficiency and Effectiveness in Courts’).
In its loosest sense, artificial intelligence refers to software processes which can carry out tasks that, if performed by a person, would be considered evidence of intelligence.\(^6\) Distinction is made between ‘general’ AI and ‘narrow’ AI. In precisely defined tasks, such as playing the ancient board game of Go,\(^7\) narrow AI processes can outperform humans. However, the AI ‘robolawyer’\(^8\) with the broad range of skills which humans possess, is still some time off.\(^9\) As discussed in Part II, ‘AI’ is a loose term to describe a collection of tools and functions. In this article it is used to denote a range of different automated systems and processes which have in common their capacity to mimic aspects of legal services, in this case with particular reference to family law.

In relation to the justice system, Professor Tania Sourdin has categorised technological effects as coalescing around three impacts: supporting those involved in the system; replacing elements of the system that were previously conducted by humans; and disrupting or fundamentally transforming the system.\(^10\) She notes that, to date, most reforms have involved the first two categories (supporting and supplementing).\(^11\) We can differentiate, for example, between supporting a decision-maker to make their decision (such as by guiding them through a series of steps) as opposed to actually automating the decision process.\(^12\) However, the expansion of AI into administrative decision-making,\(^13\) and the growth in online dispute resolution options – including under the auspices of the court system – suggests that the third category is developing quickly.

Meanwhile, some North American scholars have suggested that lawyers practising in family law will continue to enjoy greater job security when compared to their colleagues in other areas of law, given the importance of human interaction for family law clients.\(^14\) Yet the imperatives of financial strain and the difficulty of obtaining legal aid already raise access to justice concerns and compel many in the direction of less than full legal representation, whether they are partially represented, self-represented and/or accessing other kinds of legal information, advice and support systems.\(^15\)

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\(^9\) Though some predict that this will be achieved by 2050: Seth D Baum, Ben Goertzel and Ted G Goertzel, ‘How Long Until Human-Level AI? Results from an Expert Assessment’ (2011) 78(1) *Technological Forecasting & Social Change* 185.
\(^11\) Ibid.
\(^12\) Zelznikow, ‘Efficiency and Effectiveness in Courts’ (n 5) 37.
\(^15\) John Dewar, Barry W Smith and Cate Banks, ‘Litigants in Person in the Family Court of Australia’ (Research Report No 20, Family Court of Australia, 2000) 16, use the term ‘partially represented’ to denote litigants who may have lawyers come and go. The authors observe that although a person may appear in court without legal representation does not mean that the
Access to justice in family law matters has been identified as a serious problem in Australia (and indeed in other common law jurisdictions, such as Canada and England and Wales). This is a key reason why developments in the categories described by Sourdin have already impacted and have the potential to further impact the way that family law legal services are delivered.

Automated systems hold out many possibilities for improving information provision and supporting decision-makers; for replacing some elements of legal work; and even, as Sourdin notes, ‘where predictive analytics may reshape the adjudicative role’. Many of its applications can be of use to family law clients and to family lawyers themselves. At the same time, it is important to be wary of seeing automated systems as too ready a solution in the face of constraints on the family law system and what Professor John Dewar termed ‘the normal chaos of family law’.

Part III discusses some of the reasons that family lawyers may be seen as necessary in family law disputes but also constraints on access to justice and problems with the family law system. Part IV describes some examples of automation in family law, while Part V examines specific issues associated with increasing use of automated systems, and Part VI concludes.

II ‘AI’, ‘LEGALTech’ and Other Umbrella Terms

Artificial intelligence is an umbrella term which may encapsulate many different methods and lacks an agreed or consensus meaning. As someone joked on Twitter, ‘If it is written in Python, it’s probably machine learning. If it is written in PowerPoint, it’s probably AI’. AI might also be referred to generically as automated systems. Despite the reference to ‘intelligence’, ‘[a]n AI system is not really “reasoning” or “thinking” but is following a set of pre-programmed or computational steps... or mathematically analysing a huge amount of data to infer a probability’.


Note that Sourdin discusses some of the many issues around technology supplanting the judicial role but this is not the focus here: Tania Sourdin, ‘Judge v Robot: Artificial Intelligence and Judicial Decision-Making’ (2018) 41(4) *University of New South Wales Law Journal* 1114, 1117 (‘Judge v Robot’).


Broad (n 19) xx.

AI has developed considerably since its early iterations, though progress has not been linear but rather marked by a series of cycles – rapid development and generous funding punctuated by ‘AI winters’.23 The current surge in interest has been fuelled by the greatly increased processing power (at considerably less relative cost) of computers, including personal computers and devices, and the massively increased volumes of electronic information or data that are available.

The history of AI and law, a discipline established decades ago, is illustrative. From this period onwards academics investigated ‘expert systems’, using decision trees, to solve legal problems.24 These types of system are representative of existing knowledge and are pre-programmed with logical rules and definitions. They may also employ mathematical formulae and weightings of different variables. Their outputs might be an assessment of a legal situation, or the automatic completion of a form.25

During the 1990s, there was interest in the AI and law community not only in expert systems based on explicit rules but in ‘case based reasoning systems’, which attempted to derive those rules from an existing body of case law.26 The limitations of these approaches led to investigation of neural nets as a means of overcoming them. Neural nets are systems structured in a way that mimics the (projected) architecture of the human brain as a network of interconnected nodes. Exploration of the possibilities of neural nets has occurred, as explained in Part IV, in the development of systems for family law disputes.27

Professor Kevin Ashley has noted that ‘legal expert systems are still widespread in use’,28 and some of their applications are discussed below. However, Ashley considers that they will not revolutionise the delivery of legal services.29 Rather, it is advances in cognitive computing, or machine learning, that are galvanising interest, and massive investment, today.30 Neural networks are one subset of methods which fall under the umbrella of ‘machine learning’. In particular, ‘deep’ neural networks (with multiple ‘hidden’ layers), used for ‘deep learning’, are behind many publicised AI developments.31

Sometimes referred to as ‘data-driven systems’, machine learning programs ‘infer formal relations… from unstructured data’.32 Rather than being pre-programmed with rules, the program itself identifies patterns and correlations in training data and creates a mathematical or statistical model which is then applied to new data.

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23 Toby Walsh, It’s Alive! Artificial Intelligence from the Logic Piano to Killer Robots (La Trobe University Press and Black Inc, 2017) 49–50.
28 Ashley (n 24) 10.
29 Ibid.
30 Walsh (n 23).
32 Rostain (n 2) 561.
Supervised machine learning refers to providing the program with labelled training data – in other words, indicating the outputs which are sought. An image recognition program could be trained with photos already labelled as to what they depict (or more precisely, what a human has determined they depict),33 for example, an apple or an orange. The goal then might be for the program to correctly classify a new image as one or the other, or as something else. Using all the data available – in this case, every pixel of every image – the program uses inductive reasoning to deduce the ‘rules’ which match the data to the correct labels. The program can then itself ‘learn’ the relationships between inputs and outputs. Importantly, it can continue to adjust its model as it is provided with new data. Unsupervised learning, on the other hand, is where the software is provided with data (such as many images of fruit) and left to identify patterns on its own.34 Supervised learning is more common in legal applications.35

It would be a mistake, however, to think that humans do not have control or input over how systems are created. Rather, as David Lehr and Professor Paul Ohm explain, at every step in what may be a complex process, human input is required.36 The question to be addressed, the data, the choice of algorithm or ‘the software code that explores the relationships between the input information and the answers’,37 and weighting mechanisms, are all crucially important factors. Essentially, the programs are doing statistical analysis, but with the potential for millions of data points to be input, and billions of relationships modelled – in other words on a much more complex scale.

An application of machine learning which is important to legal applications is natural language processing (NLP), ‘a collective term referring to automatic computational processing of human languages’.38 This includes both algorithms that take human-produced text as input, and algorithms that produce natural looking text as outputs’.39 The natural language of humans is complex because it is contextual – sentence order is important and words have multiple meanings.

Developments in machine learning and NLP have generated renewed interest in the legal applications of AI,40 and in ‘LegalTech’ (technology and software with legal applications) more generally. It can be difficult to discern technology that makes use of AI (even broadly defined) and that which does not. The latter might include more conventional software for billing or document storage, for example. As explained above, an expansive definition of AI is adopted here to refer to automated systems

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33 For the difficulties that this may generate: see Broad (n 19).
36 Ibid 673.
which, unlike more general ‘LegalTech’, are capable of substituting for lawyers or elements of legal work in relation to complex processes.

Supervised machine learning is very useful in certain legal contexts – for example, where a huge number of documents must be reviewed in discovery. Provided that the documents are electronically readable (or can be converted to a readable format), the software can review and learn to classify them as either discoverable, or not.\textsuperscript{41} Other AI legal tools may use some form of simple expert system where an internet bot, or question and answer tree, guides the user through a series of steps.

By blending expert systems with machine learning, it is also possible to design tools which also learn from the examples with which they are provided, increasing their sophistication. There are many such programs available, particularly in the United States.\textsuperscript{42} The Law Society of England and Wales predicts that as these types of system become ever more sophisticated and fluent in natural language processing, they will increasingly be manned ‘by robots with the ability to test queries against a vast database of past information in seconds – as IBM Watson demonstrates for medicine’.\textsuperscript{43} Typically, the more they are used, the more such programs learn, and therefore they continue to improve as they address more queries.\textsuperscript{44}

Substantial claims have been made generally about the capacity of legal AI or automated systems (and indeed, technology in general) to improve access to justice.\textsuperscript{45} This may occur through clients being able to do their legal work themselves; through clients doing some elements of their own legal work (unbundling);\textsuperscript{46} or through lawyers using technology to themselves work more efficiently and pass costs savings on to their clients. The US Legal Services Corporation, in its ‘vision’ for improving access to justice through the use of technology, described a strategy with five components, including the development of expert systems ‘to assist lawyers and other services providers’.\textsuperscript{47}

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Family law is often seen as necessitating skills which are not strictly technical or legal, and indeed might fall into the category of ‘life skills’ which are attained through experience rather than formal training. The idea that family law is qualitatively different to other areas of practice has been largely embraced by family lawyers, possibly in part as a reaction to the traditional view of family law as a ‘low status’ branch of legal practice.\(^\text{48}\) The characterisation of family law as a separate, specialist area of law is also sometimes connected to the espousal of non-litigiousness by lawyers. Family law involves clients who are likely to be traversing one of the most difficult periods in their lives (and hence, not be in an optimal position to make important decisions) and, importantly, where the interests of vulnerable non-parties, namely children, often require consideration. One former judge has described family law as involving value judgments about deeply personal aspects of life.\(^\text{49}\) All these factors, which are explicated in greater detail below, indicate some of the complexities involved in automating family law.

Nevertheless, non-lawyer or ‘self-help’ options are not at all new to family law. For example, with the introduction of ‘no-fault’ divorce in many states of the United States in the 1970s, divorce ‘kits’ and self-help books proliferated.\(^\text{50}\) In the 1990s, as well as printed materials, software (available for purchase on CD-ROM, for example) could be used to simplify the completion of forms.\(^\text{51}\) Information about family law has been around on the internet for a long time, and has already produced a cultural change toward self-help.\(^\text{52}\) Generally, people are more likely to seek information on the internet, including in areas which would once have been considered to require professional advice.\(^\text{53}\) One Canadian study suggested that this is a factor driving self-representation, more so than a general dislike or mistrust of lawyers.\(^\text{54}\)

The arguments that were made about these kinds of materials at the time are essentially the same as those raised about the considerably more sophisticated options now available. These concern whether they might violate prohibitions on unauthorised practice of law, by crossing over from being mere provision of legal information to constituting legal advice.\(^\text{55}\) More generally, there is a debate as to whether providing

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\(^{\text{51}}\) Unauthorized Practice of Law Commission v Parsons Technology Inc, 1999 WL 47235 (ND Tex, 1999), vacated, 179 F 3d 956 (5th Cir, 1999); In Australia: see Attorney-General (WA) v Quill Wills Ltd (1990) 3 WAR 500, 503-4 (Ipp J).

\(^{\text{52}}\) See, eg, Rosemary Hunter, Jeff Giddings and April Chrzanowski, ‘Legal Aid and Self-Representation in the Family Court of Australia’ (Research Paper, Griffith University Socio-Legal Research Centre, May 2003).


people with such self-help options fulfils an important social good (enabling access to legal services for those who would otherwise not be able to access it affordably), or leaves people vulnerable to poor quality information or advice. This is discussed in Part V.

In terms of quality, there is another relatively long-standing debate concerning the degree to which family lawyers are, and should be, specialists. American researchers Lynn Mather and Craig McEwen distinguished between family law ‘specialists and generalists’, identifying these groups as constituting separate ‘communities of practice’.

Other studies have reported that family lawyers ‘have claimed for themselves special characteristics’ setting them apart from other legal practitioners. Australian family lawyers do largely seem to identify as a separate, distinct and unique group of legal practitioners. They have been described as ‘close knit and relatively homogenous’ and sharing a ‘cohesive legal culture’. Legislation to merge the Family Court and Federal Circuit Court, introduced to the Senate in late 2018, was criticised by lawyers concerned about the impact of a loss of family law specialisation within the courts. The appointment to the family law courts of judges lacking in family law expertise has also been a source of complaint. Reporting on its recent inquiry into the family law system, the Australian Law Reform Commission (ALRC), while recommending significant structural reforms in order to close the ‘jurisdictional gap’ between State matters (such as child protection and family violence intervention orders) and Federal family law matters, emphasised the continuing importance of specialisation.

This is significant because family law specialisation is associated with non-litigiousness, according priority to the wellbeing of clients and their children, and interpersonal skills including management of conflict. Studies indicate that rather than increasing discord, specialist family law solicitors tend to be resolution focused.


57 Cf Christine Piper, ‘How Do You Define a Family Lawyer?’ (1999) 19(1) Legal Studies 93, 93.


61 Federal Circuit and Family Court of Australia Bill 2018 (Cth); Federal Circuit and Family Court of Australia (Consequential Amendments and Transitional Provisions) Bill 2018 (Cth).


65 Neale and Smart (n 58); Piper (n 57); referring to a new ‘hybrid profession’: Wright, ‘A Note of Caution’ (n 58); Craig A McEwen, Lynn Mather and Richard J Maiman, ‘Lawyers, Mediators and the Management of Divorce’ (1994) 28(1) Law and Society Review 149; Janet Walker, ‘Is
While solicitors adopt different styles as required, the ‘ideal’ family lawyer type has shifted in the last few decades to embrace this. Mather and McEwen identified the norm of the ‘reasonable lawyer’ acting in divorce matters who ‘should anticipate likely case outcomes, argue only for “realistic” positions (not whatever the client wants), show respect for other lawyers, and avoid unnecessary conflict in settling cases’. In England and Wales, the ‘new breed’ of family lawyer was described as conciliatory rather than adversarial, possibly the result of legal and mediation practice converging. Dr Jill Howieson’s Australian study found that ‘the family lawyers tended towards a more conciliatory approach to family lawyering and used a blend of lawyering approaches in their work to achieve constructive outcomes’.

Family lawyers have ethical duties not only to the administration of justice and to their clients, but also to ensure that children’s interests are properly considered. In Australia, there has also been a concerted effort over many years to divert people away from engaging in adversarial litigation in family law and toward agreed resolutions. Parties in dispute over the parenting of children are intended to attend Family Dispute Resolution (FDR), a form of family mediation, prior to commencing court proceedings. At the time that this became mandatory, the federal Government set up ‘Family Relationship Centres’ around the country to provide (among other services) FDR. There are not currently any similar mandatory processes for property disputes; however, the ALRC has recommended their introduction. One group of academics has commented that it is part of a family lawyer’s obligation to encourage clients to resolve disputes outside of court and ‘clients need to be reminded that “divorce is not

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66 See Howieson, ‘Professional Culture’ (n 60) 81.
68 Mather and McEwen (n 56) 66.
69 King (n 67); Neale and Smart (n 58); Katherine Wright, ‘The Divorce Process: A View from the Other Side of the Desk’ (2006) 18(1) Child and Family Law Quarterly 93; Wright, ‘A Note of Caution’ (n 58).
71 Howieson, ‘Professional Culture’ (n 60) 80; see also Jill Howieson, ‘Family Law Dispute Resolution: Procedural Justice and the Lawyer-Client Interaction’ (PhD Thesis, University of Western Australia, 2008).
73 See, eg, Margaret Harrison, Finding a Better Way: A Bold Departure from the Traditional Common Law Approach to the Conduct of Legal Proceedings (Family Court of Australia Report, April 2007).
75 Australian Law Reform Commission, ‘Family Law for the Future’ (n 64) 261–2.
a zero sum game;” they may both be better off with a fair, nuanced settlement that takes account of their circumstances than a regime imposed by a court.’

Professor Barbara Glesner Fines has argued that, despite massive changes to family structures – notably that fewer people marry, and more marriages end in divorce – ‘the core of family law practice has remained unchanged’. Specifically, Glesner Fines claims that what she characterises as the dual challenge and reward of family law – assisting those in personally difficult circumstances – remains at the heart of family law professionalism.

The corollary to Glesner Fines’ argument is that human lawyers are essential to family law matters, which is explained by Canadian academic Noel Semple as follows:

A client who is divorcing from a co-parent, or contesting the care of an older relative, is often best served by a settlement that creatively identifies options that work well for everyone involved, within the framework of the law. Cost-effectively securing such an outcome may require an advocate with a personal reputation within a local community of practice and a working knowledge of what outcomes are considered reasonable by other lawyers and judges within the local legal culture.

Here, Semple emphasises the human aspects of professionalism which cannot be replaced, even by sophisticated software, to suggest that family law is relatively more ‘sheltered’ from the incursion of technology into legal services. The benefits of automated options must, however, be considered by reference to the current family law system, which, as reflected in Family Law for the Future, is widely regarded as a broken one. Human family lawyers also come in for their share of criticism – whether for charging exorbitant fees, increasing discord among separated families, or generally lacking competence. Accordingly, despite claims about the importance of human family lawyers, certain aspects of family law make it susceptible to automation – the first being affordability and accessibility, and the second, larger-scale problems with the efficiency of the family law system.

Firstly, unaffordability of legal services is a fundamental issue in family law. Litigants are individuals, rather than corporations, and separation typically generates enormous financial pressures as parties face disentangling financial affairs and financing the running of two households instead of one. Moreover, family problems

76 Bala, Herbert and Birnbaum (n 72) 580, quoting Robert H Mnookin, Bargaining with the Devil: When to Negotiate and When to Fight (Simon & Schuster, 1st ed, 2010) 217.
78 Ibid.
79 Semple, ‘Personal Plight Legal Practice’ (n 14) 34.
80 See, eg, Australian Law Reform Commission, ‘Family Law for the Future’ (n 64) 123 [4.43].
generate significant emotional stress which can lead to ill health.\textsuperscript{83} The Law and Justice Foundation’s survey of legal need in Australia found that ‘relationship breakdown was one of several problem types that acted as a trigger and appeared to trigger debt, legal action and other family problems’.\textsuperscript{84} In Australia, as in many other common law jurisdictions, government funding of legal aid continues to decline, and a large proportion of people do not qualify for legal aid yet are unable to afford the cost of engaging a lawyer\textsuperscript{85} – the ‘missing middle’ of the legal services market.\textsuperscript{86} In many discussions of family law and technological advances, including the use of automated systems, it is this missing middle who are the expected or intended beneficiaries. Professor Ben Barton has argued that lawyers in the US initially ignored or underestimated automated options (typically low-cost online providers of legal services and forms) to their peril.\textsuperscript{87} This was because, initially, these services were directed toward people who would otherwise have accessed no legal advice at all. With time, however, these services became attractive to the missing middle.\textsuperscript{88} That is, as they have become more established, online providers have begun to compete with lawyers as their rates are greatly discounted when compared with those of attorneys.\textsuperscript{89} Another benefit to automation might be to increase access to accurate family law information and services. Ease of access might include avoiding courts but could also extend to avoiding formal dispute resolution procedures, or face-to-face interactions with lawyers and/or the other party.

The second issue relates to the first, and concerns problems of delay and inefficiencies in the court system.\textsuperscript{90} For years the Australian family law system has been plagued by claims about delays and backlogs.\textsuperscript{91} In 2017, the House of Representatives Standing Committee on Social Policy and Legal Affairs reported that delays from court filing to the commencement of a trial can be as high as 36 months in both the Family Court and the Federal Circuit Court of Australia (Federal Circuit Court) ... [which] can increase the risk of harm to families... [I]n remote or regional areas, delays can be even greater.\textsuperscript{92}
Certainly, within family law, delays have severe impact, not just on parties but upon their children. For victims of domestic violence, for example, risk of homicidal violence from their former partner is at its highest post-separation, and children may be left in inappropriate or unsafe situations. Family Law for the Future referred to ‘multi-year delays in reaching final hearing’ in the Family Court. Perhaps unsurprisingly, the ALRC’s espousal of non-court options for dispute resolution, such as arbitration, is clearly directed to alleviating the courts’ workload and providing parties with faster access to resolution.

Issues of delay and court overwork are real and substantial, and require address. As discussed in Part V, however, automation does not necessarily present a complete or straightforward solution to these issues, which are long-standing, cultural and structural. While there are individual applications which may be very useful, it is important to scrutinise each in its particular context.

IV EXAMPLES OF AUTOMATION IN FAMILY LAW

A Information Provision and Automated Drafting

The most long-standing application of automated systems to family law is for tailoring information and in some cases generating drafts of documents or forms. The US Legal Services Corporation recommended the use of document assembly applications to facilitate the drafting of legal documents, including ‘by litigants themselves’. Another group of US authors have explained the benefits of such tools in terms of access to justice:

Instead of finding static court forms online to download, print, and complete by hand, litigants can now use interactive A2J Guided Interviews, created with A2J Author, which walks the user through the litigation process step-by-step. As litigants answer a series of questions, a form is assembled in the background using HotDocs document assembly software...

The Networked Society Institute (NSI), in its review of automated legal advice tools, noted that they cover a spectrum of uses, including those designed for consumers to use themselves, exclusively for lawyer use, or something in between (such as preparing an initial draft of a document for a lawyer to review). The NSI noted that the tools available are becoming more sophisticated, can provide more precise information to clients, and in some cases, can generate documents based on responses received. In

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93 Australian Law Reform Commission, ‘Family Law for the Future’ (n 64) 298 [10.10].
94 Ibid 332 [10.135].
95 See eg, ibid 279 [9.1].
97 LSC: Legal Services Corporation (n 47) 2.
100 Ibid.
the United States and United Kingdom, family law document automation seems to presently encompass only simple and non-contentious items such as prenuptial agreements, uncontested divorces and name changes.101

There is already a significant volume of family law information available online and for free. Aside from legislation and case law, organisations provide factsheets on different issues. Professor Jonathan Crowe et al noted a proliferation of legislation, case law, ‘websites, factsheets, self-help guides and other material’, authored variously by government services, non-government organisations or individuals.102 For some years the Family Court itself has provided ‘do-it-yourself’ kits for different forms.103 There are also some interactive types of online tools for family law matters in Australia, for example to obtain a divorce.104 One recent suggestion has been to implement an online questionnaire to be completed at the time of filing an application, in which each party could explain the steps they have taken to resolve or narrow the dispute.105

Despite the volume of information, non-lawyers seeking family law information in the online environment reportedly find it difficult traverse its complexities, and hard to evaluate the credibility of different sources.106 The potential benefit, then, of using automated tools is to more precisely direct non-lawyers to relevant information. Chatbots or more complex expert systems can walk a user through a series of steps to answer simple legal queries or be directed to curated information.107 For example, an Australian family law client intake system is Settify, an online portal whereby potential clients can provide their instructions online prior to their first face-to-face meeting with a lawyer, by answering a series of questions.108 ‘This is intended to save clients’ and lawyers’ time by generating a set of comprehensive instructions prior to the first meeting.

B ‘Predictive’ Analytics

The technology discussed above can be seen as promoting easier and more affordable access to justice (via information and in assisting people to complete forms and documents in simple and uncontentious matters). The use of ‘predictive’ analytics is geared more toward finding efficiencies by indicating a range of likely outcomes, thereby enabling people to better understand their legal position or options.

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102 Crowe et al (n 53).
104 See, eg, Online Divorce Applications (Web Page) <www.onlinedivorceapplications.com.au>.
105 Parkinson and Knox (n 80) 466.
106 Crowe et al (n 53) 141.
Many have observed the importance of prediction to what lawyers do.\textsuperscript{109} Big data analytics or predictive analytics is a way of analysing a massive quantity of data to reveal meaningful patterns. ‘Big data’ refers to the vast quantities of electronic data existing in the world, which continue to grow at an incredible rate.\textsuperscript{110} Large quantities of data, extremely powerful computers, and advances in machine learning all mean that extracting patterns from data is much easier, and the results more accurate.\textsuperscript{111} Through different types of analysis, it is also possible to make predictions from this data. Predictive analytics does not (and cannot) explain \textit{why} something is so – it just identifies the existence of a pattern.

As explained in Part II, statistical and computational modelling of legal cases is not new.\textsuperscript{112} Initial models worked on information retrieval – locating or retrieving similar cases in order to analyse whether the case in question was sufficiently similar to those cases to match the outcome. Ashley has explained that by connecting ‘features’ of cases with particular outcomes, a program can discern a pattern and use that to make predictions about the outcome of cases with similar features.\textsuperscript{113} Features might include any number of things: those we might term ‘external’ (and which are likely technically irrelevant to the merits of the case) such as who the judge was, who the lawyers were, whether the plaintiff/applicant was a natural person or a company, where the application was filed, and so on. They might also include those ‘internal’ or case-specific features more readily recognised as going to the merits, such as factual information about the events which have generated the claim.

A differentiator of programs is the extent to which the program must be told by humans about which features to use.\textsuperscript{114} Early programs required the relevant features to be identified, which involved humans determining those features which seemed to be important, either based on analysis of key cases, or from research.\textsuperscript{115} Describing the ‘Split-Up’ system, Professor John Zeleznikow has explained how relevant features were identified:

In developing Split-Up, Australian Family Law experts were used to identify factors pertinent to a property distribution following divorce. A data set of past cases was then fed to machine-learning programs. Thus, Split-Up learned the way in which judges weighed factors in past cases... The way the factors combine was not elicited from experts as rules or complex formulas. Rather, values on the 94 variables were extracted from cases previously decided, so that a neural network could learn to mimic the way in which judges had combined variables.\textsuperscript{116}

\begin{footnotesize}
\begin{itemize}
\item[111] Ibid 1–3.
\item[112] See Ashley (n 24); Zeleznikow, ‘Efficiency and Effectiveness in Courts’ (n 5) 35.
\item[113] Ashley (n 24) 107.
\item[114] Ibid 110.
\item[116] Zeleznikow, ‘Efficiency and Effectiveness in Courts’ (n 5); see also Sourdin, ‘Justice and Technological Innovation’ (n 10) 101.
\end{itemize}
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The program would then determine the weight that should be given to different features and could use this information to reach conclusions about new, or future cases.

More recently, the hope is that by using capabilities in reading text, a program will be able to analyse a mass or corpus of documents to itself identify (and weigh) the relevant features. Instead of relying on a human to manually program the features needed, they are extracted automatically from the textual data (such as the text of judgments) using machine learning. A recent example is the study of Nikolaos Aletras et al, who analysed certain judgments of the European Court of Human Rights (ECHR). Reportedly, these researchers were able to infer the outcome of cases with 79 per cent accuracy, though their study has been criticised. Among its limitations was the use of judgments in substitute for the materials filed by the parties in each case. In other words, an analysis of the text of a judgment which had already been written, was used to ‘predict’ the outcome of the case. As Pasquale and Cashwell argue, ‘[a] truly predictive system would use the filings of the parties, or data outside the filings, that was in existence before the judgement itself’. The method of Aletras et al disregards the ways that judges draft their judgment so as to support their final conclusions, including the ways that facts are interpreted, undermining the apparently impressive accuracy of the results.

Within subject-specific domains, commercial providers now offer forms of legal predictive analytics. For example, Lex Machina, among the first of its kind to offer such a service, analyses patent decisions. From its repository of thousands of decisions, it extracts information such as whether a certain lawyer has a good track record with a particular type of case, or whether a certain judge is likely to be amenable to a certain type of motion. Proponents of this type of analytics argue that this is empowering to consumers of legal services, who can judge a lawyer’s track record on objective data.

The difficulties in applying data analytics to judgments are that judgments tend to have no set format in terms of structure; factual disputes are not accounted for; and there may be insufficient data available to make reliable predictions, especially in a small jurisdiction such as Australia. One commentator has noted that

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117 Ashley (n 24) 13.
120 Ibid 68–9.
121 Ibid 70.
122 Ibid 119.
123 Some examples include Fastcase, Ravel Law (including Judge Analytics), Lex Machina and CARA.
under the strong influence of the current AI hype, people try to plug in data that is
dirty and full of gaps, that spans years while changing in format and meaning, that’s
not understood yet, that’s structured in ways that don’t make sense, and expect those
[data] tools to magically handle it.\textsuperscript{126}

Further, the effectiveness of some machine learning algorithms may mean that there
is a tendency towards ‘over-fitting’ – finding patterns in training data which are not
present in the real world.\textsuperscript{127} There are likely to also be biases present in family law data
related to gendered patterns of labour, and so on.\textsuperscript{128} If data is historic, it is questionable
how social changes occurring since the 1970s could be accounted for. On the other
hand, if only more recent judgments are used, the smaller sample size may present
problems. There have also been numerous legislative changes to the Family Law Act
1975 (Cth) itself – a key issue would be the changes to the treatment of superannuation
in the early 2000s,\textsuperscript{129} which would have significantly impacted property division.
Finally, if the data comprised only of judgments and excluded settled or non-litigated
cases, this would represent essentially a collection of ‘outlier’ data, as the majority of
separations do not proceed to final hearing and judgment. While this is arguably how
a system based on precedents (judgments) works, the benefit of a lawyer’s input is that
person’s experience of settled as well as litigated cases.

In their extensive critique of the study by Aletras et al, Pasquale and Cashwell
commented that

there is a danger that the model could be deployed by bureaucrats at the [Court] to
prioritize certain petitions, given that the Court is deluged with thousands of
petitions each year and can only decide a fraction of those cases. Without a clear
understanding of how the model is predicting the success of a claim, [this] would be
irresponsible ...\textsuperscript{130}

In the family law setting, for example, suppose that gender is highly significant in
determining property division – which is likely, given the differences in earnings of
men and women over time. Should this be built into an algorithmic model which
‘predicts’ what property division should be? Or should it be excluded? If it is to be
excluded, will it be possible to do this, as there may be any number of other data points
from which gender could be inferred?\textsuperscript{131}

It is worth bearing Pasquale and Cashwell’s caution in mind, and the limitations
discussed above, when considering the application of predictive analytics to family law
decisions. The Federal Court has publicised its development of an AI system, using
IBM software, with the goal of identifying factors which are correlated to judicial (or

\textsuperscript{126} Monica Rogati, ‘The AI Hierarchy of Needs’, Hackernoon (Blog Post, 1 August 2017)
\texttt{<https://hackernoon.com/the-ai-hierarchy-of-needs-18f11fccc007>}, cited by Philip Segal,
‘Legal Jobs in the Age of Artificial Intelligence: Moving from Today’s Limited Universe of Data
\textsuperscript{127} See Sourdin, ‘Judge v Robot’ (n 17) 1126–30.
\textsuperscript{128} Lyria Bennett Moses and Noam Peleg, ‘Why have a lawyer when you can have a robot?’
(Presentation to National Family Law Conference Brisbane, 5 October 2018).
\textsuperscript{129} Family Law Legislation Amendment (Superannuation) Act 2001 (Cth).
\textsuperscript{130} Pasquale and Cashwell (n 119) 78.
\textsuperscript{131} Bennett Moses and Peleg (n 128).
negotiated, if consent orders are included) distribution of property.\textsuperscript{132} While this might be possible – and the Court has indicated that such a system would be used for the assistance of parties – it has potentially concerning implications for justice and fairness,\textsuperscript{133} some of which are discussed below in Part V.

\section{Online Dispute Resolution}

The methods described in the preceding two sections may be combined for use in online dispute resolution (ODR). ODR is a broad term encompassing both alternative dispute resolution (ADR) which is conducted online, and systems of online courts.\textsuperscript{134} Broadly speaking, it might include online portals (as recommended in the United States Legal Services Corporation (LSC) plan for access to justice). Via such portals, people can be triaged and directed to appropriate assistance. The LSC also envisaged self-represented parties being guided ‘through the entire legal process.’\textsuperscript{135} The established Civil Resolution Tribunal in British Columbia provides such a portal for people looking to resolve some civil disputes,\textsuperscript{136} including family law.

Generally, it has been suggested that ODR is especially suitable for family law disputes.\textsuperscript{137} The complete physical (and possibly temporal) separation of the parties in particular lends itself to family mediation or family dispute resolution (FDR), especially in cases involving allegations of violence. It is argued that another benefit is that the technology creates a record of interactions,\textsuperscript{138} (though given that what transpires in FDR is inadmissible, this may not be especially useful), and may reduce the effect of power imbalances in relationships.\textsuperscript{139} In 2011, Mark Thomson reported on a project piloted in Queensland to delivery FDR services online.\textsuperscript{140} Thomson noted that the resulting web-based platform included video communication, and also:

\begin{itemize}
\item \textsuperscript{134} Michael Legg, “The Future of Dispute Resolution: Online ADR and Online Courts” (2016) 27(4) Australasian Dispute Resolution Journal 277; Dory Reiling, ‘Beyond Court Digitalization with Online Dispute Resolution’ (2017) 8(2) International Journal for Court Administration 2.
\item \textsuperscript{135} Later, the launch of portals in Alaska and Hawaii was announced: LSC: Legal Services Corporation (n 47) 2.
\item \textsuperscript{137} Tania Sourin and Chinthaka Liyanage, ‘The Promise and Reality of Online Dispute Resolution in Australia’ in Mohamed S Abdel Wahab, Ethan Katsh and Daniel Rainey (eds), Online Dispute Resolution: Theory and Practice – A Treatise on Technology and Dispute Resolution (Eleven International Publishing, 2012) 499 n 3.
\item \textsuperscript{138} Noam Ebner, ‘E-Mediation’ in Mohamed S Abdel Wahab, Ethan Katsh and Daniel Rainey (eds), Online Dispute Resolution: Theory and Practice – A Treatise on Technology and Dispute Resolution (Eleven International Publishing, 2012) 357, 377.
\item \textsuperscript{139} Ibid.
\item \textsuperscript{140} Mark Thomson, ‘Alternative Modes of Delivery for Family Dispute Resolution: The Telephone Dispute Resolution Service and the Online FDR Project’ (2011) 17(3) Journal of Family Studies 253; see also Relationships Australia, ‘Development and Evaluation of Online Family Dispute Resolution Capabilities’ (Final Report, 30 March 2011).
\end{itemize}
• screen features including small windows (pods) which can be scaled, resized and repositioned and hold a variety of information;
• visual sharing of information, including document sharing, online demonstration and whiteboard feature;
• ability to record notes which can subsequently be emailed to [FDR Practitioner]; and
• secure access to functionalities via [FDR Practitioner] authorisation.141

As this example shows, ODR may just involve traditional ADR processes which are conducted online or through electronic means. It is promoted as being cheaper, faster, more flexible, and offering more convenience than traditional ADR.142 Importantly though, humans may have a smaller role to play – it is possible for AI to ‘become the third party that performs the mediation or decision making’.143 A well-known model for such services is eBay’s ODR system, created by Modria,144 which deals with millions of disputes each year and settles 90 per cent of them with no input from eBay.145 Modria is also involved in systems that are and have been used for family disputes, such as Rechtwijzer (discussed below) and the Civil Resolution Tribunal.

Zeleznikow has reported on several ‘intelligent negotiation support systems’ with application to family law, including Split-Up and Family_Winner.146 In various writings, he has suggested that a system such as Split-Up could be used to inform parties about the probable outcome of their case (dependent, of course, on how facts would be determined) and therefore support negotiations.147 Zeleznikow has maintained, however, that ODR systems should incorporate advice about likely outcome, support the parties to make ‘trade-offs’, and also facilitate communication.148 Moreover, he commented that ODR ‘should not be fully automated’149 – the systems Zeleznikow described are to support decision-making rather than to take over this function.150

ODR has not ‘taken off’ to the degree which might perhaps be expected considering the pervasive issues of cost and delay in traditional family law litigation.151 One reason

141 Thomson (n 140) 256.
144 Colin Rule, ‘Making Peace on eBay: Resolving Disputes in the World’s Largest Marketplace’ (Fall 2008) AC Resolution.
146 Split-Up, Family_Winner, AssetDivider; Zeleznikow, ‘Methods for Incorporating Fairness’ (n 142).
147 Zeleznikow, ‘Efficiency and Effectiveness in Courts’ (n 5) 39–41.
148 Ibid 43.
149 Ibid.
150 Ibid 36.
151 Ibid; see also Australian Law Reform Commission, Review of the Family Law System (Discussion Paper 86, October 2018) (‘Review of the Family Law System’); Opinion (n 91); Berkovic (n 91).
for this may be an existing under-utilisation of mediation and arbitration options.\textsuperscript{152} People in dispute over the care of children are notionally required to attend FDR prior to filing in court.\textsuperscript{153} However, the high number of exemptions granted – at least as reported in one study\textsuperscript{154} – suggests that FDR attendance is still the exception rather than the norm. There is no requirement to attend any out of court dispute resolution process in property disputes, though \textit{Family Law for the Future} has recommended that this be changed.\textsuperscript{155} Other barriers to adoption may include the lack of a unifying representative organisation of family law mediators,\textsuperscript{156} a reluctance on the part of lawyers to encourage their clients to take up external mediation options, and seemingly a continuing preference for barristers as mediators. A final issue is that at present, FDR can only be performed by a Family Dispute Resolution Practitioner accredited by the federal Attorney-General’s Department.\textsuperscript{157} This means that while people are free to use an ODR process to attempt to resolve their family law parenting issues, they would not be able to obtain a s 60I certificate to later enable court filing. For people approaching FDR as simply a hurdle to be overcome prior to filing, there would be little incentive to use an ODR process. As Professor Patrick Parkinson and former judge Brian Knox SC have observed, channelling parties into alternative dispute resolution options will require, above all, ‘cultural change’,\textsuperscript{158} regardless of whether that process is online or not. Semple has said that the primary task of ‘good family law professionals’ is not to litigate but to ‘[keep] separating people out of family court by securing their legal rights through settlement negotiation and other forms of alternative dispute resolution’.\textsuperscript{159} This is premised, however, on lawyers’ continuing involvement in ADR processes.

Overseas there have been well-publicised attempts to increase the use of ODR in family law matters. An ODR platform for separating couples called Rechtwijzer (‘Signposts to Justice’) operated in the Netherlands from 2014 to 2017. Although the platform had been available since 2007, its newer iteration resulted from a partnership between the Dutch Legal Aid Board, the Hague Institute for the Internationalization of Law (HiiL), and Modria. Separating couples paid €100 for access to the program, which guided them through various aspects of their lives and preferences upon separation. Dutch Judge Dory Reiling explained that it included ‘online forms, chat functionality, calculation tools, and the ability to get help from an expert’.\textsuperscript{160} Upon identifying points of agreement, the program would offer a solution, which the former partners could accept or reject. An evaluation of Rechtwijzer found that users found their experience satisfactory but many nevertheless wanted a third party to review their agreement.\textsuperscript{161}

\begin{thebibliography}{99}
\bibitem{152} See Parkinson and Knox (n 82) 464–65.
\bibitem{153} \textit{FL Act} (n 74) s 60I.
\bibitem{154} Harman (n 74).
\bibitem{155} Australian Law Reform Commission, ‘Review of the Family Law System’ (n 151) ch 5.
\bibitem{156} Joe Harman, ‘The Field of Dreams’ (2018) 29(1) \textit{Australasian Dispute Resolution Journal} 33.
\bibitem{157} \textit{FL Act} (n 74) s 10G.
\bibitem{158} Parkinson and Knox (n 82) 467.
\bibitem{159} Noel Semple, ‘A Third Revolution in Family Dispute Resolution: Accessible Legal Professionalism’ (2017) 34(1) \textit{Windsor Yearbook of Access to Justice} 130 (‘A Third Revolution’).
\bibitem{160} Reiling (n 134) 3.
\bibitem{161} Esmee A Bickel, Marian A J van Dijk and Ellen Giebels, ‘Online Legal Advice and Conflict Support: A Dutch Experience’ (Report, University of Twente, March 2015) 31, cited by Sourdin, ‘Judge v Robot’ (n 17) 1122.
\end{thebibliography}
This feature was later included, and reportedly nearly 60 per cent of those who used the platform proceeded through to finalising an agreement and registering it.\(^{162}\)

Rechtwijzer was said to be used in around 700 Dutch divorces a year,\(^{163}\) though as Professor Richard Moorhead has pointed out, this approximates to only one per cent of all divorces in the Netherlands.\(^{164}\) Financial difficulties reportedly caused the cessation of the ODR platform.\(^{165}\) In a post sub-titled ‘Why online supported dispute resolution is hard to implement’, Maurits Barendrecht of HiiL speculated about some of the reasons Rechtwijzer had not succeeded but reached no definite conclusions.\(^{166}\) Barendrecht did note lessons from traditional voluntary mediation – that there are multiple and complex reasons for people to wish to avoid such processes.\(^{167}\) Rechtwijzer has now been succeeded by a new platform, Uitelkaar.nl, which assists ex-partners to design their own separation agreements.\(^{168}\)

Citing Rechtwijzer, various Australian organisations announced their intention to pursue a similar form of ODR. In 2016, Rechtwijzer representatives were in Australia promoting their efforts at increasing access to justice,\(^{169}\) and in 2017 the Australian federal government provided ‘seed funding’ to National Legal Aid (NLA) to create an ODR platform.\(^{170}\) It is unclear whether the proposed platform would be only for parenting matters or would encompass property disputes as well.\(^{171}\) Though NLA’s chairman claimed at the time that up to 20 per cent of family law disputes could be resolved online, no basis for this estimate was given.\(^{172}\) Given that Rechtwijzer captured only a very small percentage of Dutch divorces after its years of operation, the 20 per cent projection seems highly optimistic. It is also possible that a family law ODR system would capture people who would have attended some form of family mediation.\(^{169}\)

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166 Barendrecht (n 162).

167 Ibid; see further Part V below.

168 Uitelkaar (Web Page) <https://uitelkaar.nl/> (‘An independent lawyer checks whether the agreements are legally correct and balanced for both parties’). As Barendrecht (n 162) notes, it is too early to know how this new platform is performing.


170 Matthew Denholm, ‘Quick E-Divorce to Save Couples Time and Money’, The Australian (Sydney, 8 August 2017), 5.

171 The reporting of the story, which references ‘e-Divorce’ in its headline, is also quite misleading given that obtaining a divorce online has been possible in Australia since 2009: Federal Magistrates Court, Annual Report 2009/10. Indeed since January 2018 paper copies of divorce orders are no longer posted, with the divorce order being electronic only: see <http://www.federalcircuitcourt.gov.au/wps/wcm/connect/fccweb/how-doi/divorce/apply-for-a-divorce/apply-for-divorce>.

172 Denholm (n 170).
mediation or dispute resolution regardless, rather than attracting people who would otherwise not have attended and proceeded to file in court. Clearly, a shift from face-to-face family mediation or FDR to an online or partially automated process, while it may be cost-effective for government funded FDR services, does not carry the same benefits as diverting more people away from litigation.

V ASSISTING AND ‘RESPONSIBILISING’

In *Family Law for the Future*, the ALRC noted that those litigating family law disputes represent only a very small proportion of all people who go through separation. Most people (70 per cent) resolve parenting disputes without recourse to the family law system. Fortytwo per cent of parents resolve their property disputes via discussion, and it is projected that this rate is higher for separating couples without children. Of matters which do enter the system, the ‘vast majority’ settle. This includes those which proceed as far as a trial, with over 40 per cent of these settling during trial or prior to judgment being delivered.

Those matters which do enter the family law system, however, frequently involve families and individuals with multiple complex needs. In the Australian Institute of Family Studies’ (AIFS) *Evaluation of the 2006 Family Law Reforms*, co-occurrence of complex problems, such as family violence, addictions and mental health problems, was noted to feature in family law matters. These findings were confirmed in AIFS’ 2014 study. Such findings are not confined to Australia. For example, Professor Janet Johnston et al, when writing of the United States, have observed that ‘conflict-ridden divorcing families’ are likely to be beset by multiple serious problems. The legal problems of individuals generally tend to cluster and are interconnected and interdependent. In the case of groups who are already socially marginalised, the prevalence of multiple interconnected problems is greater.

Academics in the United Kingdom have identified within family law a renewed focus on individual autonomy and a corresponding narrowing of the concept of

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174 Australian Law Reform Commission, ‘Family Law for the Future’ (n 64) 79 n 2.
175 Ibid 80 [3.3].
178 Johnston et al (n 176).
vulnerability. It has been argued that the privileging of individual autonomy permits a corresponding reduction in State responsibilities for welfare generally, including family law legal services. By shrinking the boundaries of vulnerability, and repositioning all those outside it as capable and ‘responsibilised’, legal aid has been significantly reduced. Constraining the category of people who may be identified as vulnerable is, however, to overlook the significant issues facing many of those who now fall outside the definition of vulnerability and are therefore rendered ineligible for legal aid.

The construction of fewer individuals as vulnerable and in need of assistance, and of more as able to independently manage their own legal matters, is occurring against a backdrop of enormous growth in ‘informal’ sources of legal support. Scholars note that, as in Australia, a ‘plethora of informal, self-help resources … can be accessed online’. Yet, many people will struggle to use these resources effectively:

The scalar shift here is political, intending the majority to take personal responsibility for managing their own disputes. But, many people living in circumstances that require specific and holistic advice or formal intervention will inevitably experience significant difficulty both in locating these sources of help and making use of any information or guidance they are able to access.

In other words, despite comparative ease of access and low cost, there are many reasons why some people will not be able to access automated options; the most disadvantaged, who may also be most in need of legal help, may face too many complex and interconnected difficulties and have too few resources. In her Canadian study of self-represented parties, Macfarlane noted that: ‘Many … expressed the need for more than on-line resources, however good – a need for human contact and support as they navigate the justice system and prepare their case to the best of their ability’.

For these reasons, despite problems of affordability, access, and efficiency in the family law system, automated options must be critically examined in their context. In the United States, facilitating access to justice has long been the counter-argument to concerns voiced about legal advice or drafting offered by legally-unqualified entities, and lawyers and their representative organisations are accused of protectionism when unauthorised practice issues are raised. However, some academics have queried


\[182\] Mant and Wallbank, ‘The Mysterious Case’ (n 180) 639.

\[183\] Ibid 641.

\[184\] Ibid.

\[185\] Ibid 643.

\[186\] Ibid 638.

\[187\] Coumarelos (n 83) xv; Geoff Mulherin, ‘Law and Disadvantage’ in Michael Legg (ed) Resolving Civil Disputes (LexisNexis, 2016) 225, 249 [16.79].

\[188\] Macfarlane (n 54) 67.

whether automation is really a panacea for access to justice issues. Nick Robinson, for example, has pointed out that in the case of will-writing, affordable options not involving lawyers have been widely available for many years – firstly as paper forms, then as computer software, and now online – yet this has not changed the proportion of Americans dying intestate. In other words, though more people may use the non-lawyer option, there has been no overall increase in people making wills. This example illustrates the complexity of access to justice, or the reasons why people do not access justice options, which include not knowing there is a legal issue, personal stress or distress, inconvenience, fear or mistrust of the legal system, or lacking faith in the system’s effectiveness – it is more than just affordability, though this clearly plays a key role.

In family law matters, it seems likely that cost is a significant barrier, especially to people wishing to consult a lawyer or litigate. The ALRC noted that litigation involves ‘prohibitive’ costs for most people. Those most likely to benefit from low-cost automated options, however, are not those most in need, but rather people whose affairs are uncomplicated, relationships are not characterised by coercion, control or fear, and who are able to afford the costs of the service. Robinson essentially makes this point when he observes that online document drafting providers such as LegalZoom are marketed squarely to the middle classes.

### Affordability and Access to Legal Options

Some of the possibilities and limitations of automation for access to justice can be illustrated by a recent Australian example. ‘Ailira’, the ‘Artificially Intelligent Legal Information Research Assistant’, can provide tailored advice and help to victims of domestic violence, including drafting applications for civil protective orders. Its website explains: ‘Ailira can log incidents of domestic violence so as to create a time-stamped paper-trail. She can generate Intervention Orders, accompanying affidavits and background letters based on those logs’. This is a worthy goal and there is nothing to suggest that Ailira’s developers are not making a serious attempt to create a product which will be helpful to persons in need of protection (PINOPs). Ailira may not, however, be well-suited to PINOPs, for reasons detailed below.

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191. Robinson (n 190).
192. Rebecca L Sandefur, ‘What We Know and Need to Know About the Legal Needs of the Public’ (2016) 67(2) *South Carolina Law Review* 443, 445, 449-50; see also Schoonmaker (n 88).
194. Australian Law Reform Commission, ‘Family Law for the Future’ (n 64) 196 [6.5], 248 [8.8].
195. Robinson (n 190).
197. Ibid.
The first issue is whether Ailira is addressing a presently existing legal need.\(^{198}\) It is not clear that the drafting of the application is the major hurdle facing a PINOP when it comes to seeking protection. There is extensive literature on the barriers faced by complainants in reporting family violence, which are both psychological (including the experience of being subjected to coercion and control)\(^{199}\) and structural\(^{200}\) rather than procedural. In addition, in Australia it is generally the police who play ‘a major role…in applying for protection orders’ and have specialised units focused on domestic violence.\(^{201}\) In some jurisdictions police have compelling obligations to investigate family violence, and to apply for protective orders.\(^{202}\) In New South Wales, where police must apply for protective orders if they suspect that a family violence offence has been, is being, or is likely to be committed against a PINOP, the vast majority of applications are made by police.\(^{203}\) In some instances a PINOP may make a private application. This generally happens if the police have refused to make an application, the person is mistrustful of police and hence prefers to proceed independently, or if two parties are making cross-applications. Ailira might, therefore, enable more people to effectively apply themselves, though there are differing views as to whether it is preferable for police, or PINOPs, to make the application.\(^{204}\)

The second issue is whether Ailira is capable of drafting Intervention Orders effectively. Translating a narrative of a person’s experience of violence into a legally relevant account is a challenging task, as Dr Jane Wangmann’s research in NSW found.\(^{205}\) There is the challenge of knowing what is legally relevant, and what is not. A PINOP might unwittingly self-incriminate by disclosing incidences of his or her own criminal acts or other issues such as migration status – statements such as these would be difficult for an automated system to identify. Professor Richard Moorhead has also noted the ethical complexity of constructing a legal narrative in a more mundane

\(^{198}\) The concept of ‘legal need’ is to capture problems which individuals may not themselves identify as legal issues: see generally Hazel Genn, *Paths to Justice: What People Do and Think About Getting to Law* (Hart Publishing, 1999).

\(^{199}\) See, eg, Special Taskforce on Domestic and Family Violence in Queensland, *Not Now, Not Ever: Putting an End to Domestic and Family Violence in Queensland* (Report, 28 February 2015) 301.


\(^{202}\) Ibid 244–45 [5.72]-[5.77].


\(^{205}\) Wangmann’s research was focused on cross-applications: she reviewed 156 such applications, as well as conducting court observation: Wangmann (n 203) 702–3.
example. He utilised DoNotPay, globally touted as the world’s first ‘legal chatbot’. By answering a series of questions, the app generated a letter for Moorhead challenging his (fictitious) parking fine. Moorhead noted that the resulting missive contained an untruth which had not formed part of his instructions. Among other things, this illustrates the ethical challenge of translating a person’s narrative into a legal complaint via an AI system. Wangmann has explained further that the focus of the complaints which she reviewed tended to be on a specific incident or incidents, thereby disregarding the ongoing pattern of behaviour constituting coercion and control (notwithstanding the intent of the legislation to capture such patterns). While Ailira might enable more incidents to be described, it still appears to retain this structure. It is not clear whether Ailira will be able to advise users on brevity, or if it will encourage or discourage lengthy complaints.

The third issue is whether the infrastructure of the justice system can follow through on the application process. This is not a fault of Ailira but rather reflects the reality that ultimately, seeking to increase the use of Intervention Orders will require increased resourcing of police and courts. Wangmann’s research in NSW and that of Rosemary Hunter conducted in Victoria found that the average time for civil protective order applications to be dealt with in court was around three minutes. If Ailira enabled considerably more PINOPs to apply for protective orders, there would need to be additional resourcing of courts to hear and determine such applications and of police to be capable of enforcing the orders once made.

The concept of Ailira as a means of increasing access to justice for PINOPs has some salient points for family law. There is the question of unmet legal needs, and whether they will actually be addressed by a given program. At times, it also seems to be assumed that the use of technology, and automated systems in particular, will always be cost-saving. Yet, even aside from the cost of developing, building, training and testing a program, if the technology achieves its goal of increasing access, the opposite may be true.

Finally, increasing affordable options should not be a substitute for adequate funding of courts, Legal Aid, or community legal services. Using the example of family violence, Professor Paul Gowder has commented that:

[T]he victim of domestic violence who needs help from the legal system to protect herself ... does not merely need an analysis of the relationship between the facts of her situation and the legal standards for a restraining order. She often needs the human and interpersonal assistance provided by lawyers – someone to listen to those facts and take her account of them seriously, who is credible to police and to courts, and who has the social capital as well as the courage...

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207 Ibid.
As well as ensuring that a complaint is not self-incriminating and does not contain untruths or other inappropriate material, a lawyer can assess if the PINOP has other legal issues associated with the abusive situation, such as family law, employment, migration or debt matters, which, in the absence of specific questions, an automated system would not be able to do. In the case of Ailira, it would be supposing the PINOP has a potential victim’s compensation claim that she is not advised about. This raises in turn the spectre of professional negligence and liability, and who might bear that responsibility. Documenting some of the online sources that offer family law assistance to Australians, Tahlia Gordon has noted that non-lawyer providers have professional looking websites, and that information about the provider’s non-lawyer status is often difficult to locate, or is not disclosed.

B Justice and Fairness

Civil justice regimes involve, inter alia, a trade-off between efficiency and individual rights. Justice Perry of the Federal Court has commented that ‘the efficiencies which automated systems can achieve, and the increasing demand for such efficiencies, may overwhelm an appreciation of the value of achieving substantive justice for the individual’. The application of automated systems in family law raises a number of fairness and justice concerns, both at a structural and an individual level.

At the individual level, Zeleznikow’s example of the ‘Family_Winner’ system for family dispute resolution is illustrative. He explains:

[S]olicitors at Victoria Legal Aid and mediators at Relationships Australia were very impressed with the manner in which Family_Winner suggested trade-offs and compromises. However, they had one major concern: that by focusing upon interest-based negotiation, the system had ignored issues of justice.

Of course, this problem arises in any form of privatised dispute resolution and is especially pertinent in family law, as Professors John Eekelaar and Mavis Maclean discuss comprehensively in their book, Family Justice. It is well-illustrated in Australia by the strict approach initially taken by the court in determining whether a financial agreement would be binding on the parties. A key issue is the potential

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210 See generally Beames (n 55).
212 Eekelaar and Maclean, Family Justice (n 16) ch 9.
214 Zeleznikow, ‘Methods for Incorporating Fairness’ (n 142) 19.
215 Ibid.
216 Eekelaar and Maclean, Family Justice (n 16); see also Penelope E Bryan, ‘Reclaiming Professionalism: The Lawyer’s Role in Divorce Mediation’ (1994) 28(2) Family Law Quarterly 177.
vulnerability of one party, especially in the context where family violence is alleged.\textsuperscript{218} There are many positives to privatised dispute resolution in family law – time and cost savings, control and ownership of the outcome, preservation of relationships – yet the combination of automation and privatisation raises additional concerns. In family law matters, perhaps more so than any other area of law, personal and social concerns are germane – the pursuit or non-pursuit of legal options may be driven by a multitude of factors which are not susceptible to quantification or cost-benefit analysis. For example, a person may forgo their property entitlement in order to avoid a dispute, for many personal reasons – care for the other party, fear of the other party, concern for children, and so on. Moreover, family law decisions are highly discretionary. As Parkinson has noted, there are no principles of quantification which can guide the resolution of property disputes.\textsuperscript{219} Thus, applying a mathematical approach to family law matters should be pursued with caution, as it has the potential to result in unjust outcomes.

It has been argued that ‘in divorce hearings, algorithms can automatically assess the individuals’ property, financial background, and calculate the amount of time spent together to create a fair agreement’.\textsuperscript{220} This assertion, however, rests on the assumption that what a particular subset of other separating couples (since no system will have access to the decisions of every separated couple) decided was fair is necessarily fair for the individuals in question. The assumption that the experience of a population provides the ‘fairest’ outcome for everyone cannot be made lightly.

The problems with transposing fairness to an individual and the experience of a broader group is brought into stark relief by the use of algorithmic risk assessments, such as COMPAS,\textsuperscript{221} which is used in the United States criminal justice system. Lehr and Ohm have noted the many places in the machine learning process where decisions must be made – about the questions to be asked, the choice of algorithms, and so on.\textsuperscript{222} There is little consensus on how ‘fairness’ might be defined, let alone reproduced in a machine learning system.\textsuperscript{223} Further, the training data itself may be the product of biased human thinking or historic discrimination – such as the over-policing and over-incarceration of certain communities.

\textsuperscript{218} Estimates as to prevalence vary, but see, eg, Lawrie Moloney et al, Allegations of Family Violence and Child Abuse in Family Law Children’s Proceedings: A Pre-Reform Exploratory Study (Research Report No 15, Australian Institute of Family Studies, May 2007) which suggested that over half of family law cases involved allegations of violence and/or child abuse.
\textsuperscript{222} Lehr and Ohm (n 35).
In common with decisions about bail, parole, and sentencing, family law decisions are largely ‘predictive’. Rather than being a decision adjudicated on past events (as most judicial decisions are), knowledge of past events is used to determine what is in children’s best interests, or (to a lesser extent) what a person’s financial needs will be, going into the future. In family law, however, there is no data at all as to whether the decision – whether made by the parties themselves, or judicial determination – actually did represent the best or fairest outcome. The only possible measure of this (which is a poor one) is whether the parties returned to litigate further.

When it comes to analysing past cases in order to try and predict future outcomes, there are normative concerns about a rigid or isolated interpretation. In other words, just because past decisions on a certain issue tend one way, this does not mean that they should have tended that way, or that the immediate case in point should have that same outcome. AI lacks what is referred to as ‘common sense’ – generalised knowledge of social context and the human world.224 In law, this includes an understanding of the idiosyncratic way that the common law has developed and continues to develop, but also more nebulous policy concerns and the importance of the rule of law. Pasquale and Cashwell question ‘the social utility of prediction models as applied to the judicial system’, fearing ‘that their deployment may endanger core rule-of-law values’.225

While the common law is based on precedent, appellate courts frequently develop the law. Lyria Bennett Moses and Janet Chan have noted that ‘[r]elying on past data, including past settlements, when making settlement decisions creates a feedback loop so that an initial bias … is perpetuated’.226 This would be problematic in family law where social norms have changed, leading to legal change; where laws themselves have changed; or simply where past decisions available are not reflective of present circumstances. This has ramifications for the use of data analytics of decisions and consent orders, especially if AI-generated predictions were used to make determinations about Legal Aid funding or otherwise hinder a person accessing the court. In a worst-case scenario, people might settle based on the prediction of software even though a court would not have found the same way,227 or be denied Legal Aid when they should have received assistance. Thus, while it might be argued that the ready availability of data is empowering for individual consumers – they can more rationally assess their case’s chances of success, for example – it might also have a chilling effect, further entrenching pronounced disparities of access.

There are many potentially useful access-to-justice applications for automated systems. Access to better quality and more reliable information about the family law system would be beneficial, for instance. Access to justice need not mean access to lawyers or courts. In family law matters, it might simply be people understanding their legal options and being able to choose the resolution option they prefer, without excessive wait times or cost, and in circumstances of safety.

225 Pasquale and Cashwell (n 119).
Research into human decision-making also suggests that technology can be highly useful as an organisational, corrective, and supplemental tool.\textsuperscript{228} Ailira, for instance, may produce a useful first draft of a complaint which a lawyer, domestic violence support worker, or police officer could review. Yet interest in efficiencies and self-help options should not lead to financial efficacy being prioritised above all, nor should it result in a ‘two-tiered’ justice system\textsuperscript{229} where those who cannot afford ‘real’ lawyers are reduced to making do with automated options.

VI CONCLUSION

Some commentators have claimed, ambitiously, that ‘most’ disputes can be solved by artificial intelligence and that family lawyers are not immune from the impact of AI.\textsuperscript{230} In contrast, Semple, as noted above, suggests that ‘personal plight lawyers’ will continue to be needed and sought out, even in the face of increasing automation of legal services, due to the importance for individuals of connecting with a human lawyer when confronting family law or other personal matters.\textsuperscript{231}

Family lawyers are frequently gatekeepers to the family law system and their influence on clients is substantial.\textsuperscript{232} Yet, family law also involves emotional work on the part of the lawyer as clients usually seek, and require, more than ‘pure’ or mechanistic legal advice. The difficulties that clients may have – as Gowder’s comment\textsuperscript{233} quoted in the previous Part illustrates – tend to be vastly more substantial than needing to know the steps of a legal process, though clearly this is also important. Some argue that this limits opportunities for automation in family law,\textsuperscript{234} but the opposite is also claimed. One former family law judge suggests that the majority of matters brought to United States family courts are ‘non-legal’ disputes over parenting,\textsuperscript{235} where people are more in need of sensible advice about managing time and communicating (which apps may be able to provide) than legal counsel.\textsuperscript{236} It is these non-legal elements, however, which are important for ‘problem-solving’ lawyers, as this necessarily involves aspects which are relational and contextual. Carrie Menkel-Meadow has summarised the steps which lawyers need to consider when advising clients, which include the client’s goals, ‘underlying needs or interests’, and what is important to them and requires resolution. Menkel-Meadow suggests that lawyers must consider ‘the legal, social, economic, political, psychological, moral, ethical and organizational issues, benefits, and risks implicated in the matter’.\textsuperscript{237} This holistic picture of a lawyer’s task demonstrates the


\textsuperscript{229} Remus and Levy (n 2) 551.

\textsuperscript{230} Ben-Ari et al (n 220).

\textsuperscript{231} Semple, ‘Personal Plight Legal Practice’ (n 14).


\textsuperscript{233} Gowder (n 209).

\textsuperscript{234} Semple, ‘Personal Plight Legal Practice’ (n 14); Schoonmaker (n 88).


\textsuperscript{236} Adieu is one example of a startup using artificial intelligence to help humans resolve conflict, starting with separation and divorce: \textit{Adieu} (Web Page) <https://www.adieu.ai/>.

importance of situating the client and the problem in order to discern the specific legal questions involved; and considering the ramifications of any action in a broad way. Yet, unbundling has been used in family law matters for some time, demonstrating that a disaggregation of tasks is possible.238

In terms of AI’s impact on the profession of law, Remus and Levy predict that the least impact will be felt on ‘unstructured’ areas of practice and those where personal interaction is required.239 In a good example for family law, they explain ‘legal prediction software programs address only courts and case law, but lawyers must routinely predict many other things, such as how an opponent will react to a settlement offer’.240 In family law, lawyers must also have regard to the best interests of the child.

AI innovations in family law can thus far only supplement the work of lawyers. Yet there are undoubtedly potential benefits, such as reducing the cost to consumers and increasing access to justice, in some circumstances. Both family lawyers and litigants may benefit from such increased efficiencies. Professor Rebecca Aviel has discussed the importance of differentiated case management in family law, which she describes as ‘a multistream system that endeavors to tailor the level of procedural intricacy to the degree of conflict and complexity presented by their particular circumstances’.241 Aviel refers to the value of triaging or ‘sorting’ to accord appropriate priority to family law matters, using intake procedures, and also leveraging metrics to gain a more accurate picture of how case management is working. In other words, she describes processes at which AI is likely to excel. Lawyers may use AI technology themselves to increase the efficiency of what they do, clients may already have made use of technology themselves, or lawyers may wish to refer their clients to technological assistance. It will be important, though, that family lawyers have a clear understanding of the limitations and pitfalls of automated systems as well as their potential benefits and uses. This is particularly so in relation to the use of automation by courts and governments in pursuit of efficiency. Especially in the case of vulnerable clients and children, self-help automated options may be useful tools, but will not be appropriate substitutes for professional family lawyers.

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239 Remus and Levy (n 2).
240 Ibid 526.