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ARTICLE

# INTELLIGENT LEGAL TECH TO EMPOWER SELF-REPRESENTED LITIGANTS

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*Legal technologies, or "legal tech," are disrupting the practice of law and providing efficiencies for businesses around the globe. Indeed, legal tech often conjures up notions of billion-dollar businesses and highly sophisticated parties. However, one branch of legal tech that holds particular promise for less sophisticated parties is access to justice ("A2J") through the use of online dispute resolution ("ODR"). This is because ODR uses technology to enable online claim diagnosis, negotiation, and mediation without the time, money, and stress of traditional court processes. Indeed, courts are now moving traffic ticket, landlord-tenant, personal injury, debt collection, and even divorce claims online. The hope is that legal tech such as online triage and dispute resolution systems will provide means for obtaining remedies for self-represented litigants ("SRLs") and those who cannot otherwise afford traditional litigation. Meanwhile, the COVID-19 pandemic has accelerated the growth of online processes, including court and administrative processes that traditionally occurred in person. Nonetheless, these online processes seem focused mainly on case management and communication, neglecting the need for more imaginative and innovative uses of technology. Accordingly, this Article proposes a six-module system for ODR programs and identifies gaps in development where new technologies are needed to advance A2J. Indeed, there is great room for the development of Artificial Intelligence ("AI") and data analytics to assist SRLs and others in pursuit of remedies and justice.*

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## I. INTRODUCTION

There has been a growing trend to seek alternatives to litigation since the 1970s, which is the foundation for the growth of the Alternative Dispute Resolution ("ADR") movement.[1] Empirical research by Marc Galanter of the University of Wisconsin at Madison concluded that the number of trials in the United States, whether federal or state, civil or criminal, jury or bench, is declining.[2] The shrinking number of trials is especially important because virtually everything else in the legal world is growing, including the number of lawyers, plethora of cases, expenditure on legal services, and amount of regulation.[3]

For example, there has been an increase in legal activity among those with the most power and money.[4] Moreover, while trials in courts are in decline, "trial-like events" like arbitrations outside the courts are on the rise.[5] In 2011, Peter Murray estimated that in the United States, the percentage of civil disputes that are actually decided by court adjudication is probably less than 2%, indicating that 98% are ending in settlement or dismissal.[6]

Does this mean that people are simply not experiencing problems or claims worthy of legal action? No. The reality is that most people in need of legal redress cannot afford lawyers. Accordingly, they forego pursuit of their claims, or they assert their claims in court or defend themselves without the aid of a lawyer. These are pro se or self-represented litigants ("SRLs").[7] In recent years, both federal and state courts have seen a sharp increase in the number of SRLs.[8] This Article aims to address how legal technology can support SRLs in accessing justice and obtaining remedies in a system often stacked against them.

According to the U.S. National Center on State Courts, 72% of domestic relations (family law) cases have at least one unrepresented party.[9] In some

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[1] Deborah R. Hensler, *Our Courts, Ourselves: How the Alternative Dispute Resolution Movement Is Reshaping Our Legal System*, 108 PENN ST. L. REV. 165 (2003).

[2] Marc Galanter, *The Hundred-Year Decline of Trials and the Thirty Years War*, 57 STAN. L. REV. 1255, 1255–74 (2005); *see also* Jeffrey Q. Smith & Grant R. MacQueen, *Going, Going, But not Quite Gone: Trials Continue to Decline in Federal and State Courts. Does it Matter?*, 101 JUDICATURE 26, 28 (2017) (indicating that the number of jury trials completed in U.S. district courts had an almost annual linear decline from 6,893 in 2000 to 3,647 in 2016).

[3] Galanter, *supra* note 2.

[4] Marc Galanter, *The Vanishing Trial: An Examination of Trials and Related Matters in Federal and State Courts*, 1 J. EMPIRICAL LEGAL STUD. 459, 460 (2004).

[5] Marc Galanter & Angela M. Frozena, *A Grin without a Cat: The Continuing Decline & Displacement of Trials in American Courts*, 143 DAEDALUS 115, 126 (2014).

[6] Peter Murray, *The Privatisation of Civil Justice*, 85 ADMIN. L. J. 490, 494 (2011).

[7] Stephan Landsman, *The Growing Challenge of Pro Se Litigation*, 13 LEWIS & CLARK L. REV. 439, 439 (2009). For the purpose of this Article, we define "self-represented litigants" as those people who do not have legal representation, whatever the legal process, be it in court, an arbitration, a mediation, a negotiation, or some other form of legal process.

[8] James E. Cabral et al., *Using Technology to Enhance Access to Justice*, 26 HARV. J. L. & TECH. 241 (2012); Pablo Cortes, *Using Technology and ADR Methods to Enhance Access to Justice*, 5 INT'L J. ONLINE DISP. RESOL. 103 (2018).

[9] NATIONAL CENTER FOR STATE COURTS, THE LANDSCAPE OF DOMESTIC RELATIONS CASES IN STATE COURTS 20 (2018), https://www.ncsc.org/__data/assets/pdf_file/0018/18522/fji-landscape-report.pdf.

states, as many as 80% to 90% of litigants are unrepresented in civil issues such as custody and family law cases, even though their opponent may have a lawyer.[10] Karl L. Branting argues that

> SRLs frequently present staff and judges with a dilemma: providing too much help can constitute unauthorized practice of law (for court staff) or bias (for judges), but providing too little help can effectively deny a pro se litigant access to the courts.[11]

Likewise, Stephan Landsman claims that SRLs can make life difficult for a court, as they create additional administrative burdens, delays, and challenges for maintaining impartiality.[12] SRLs lack the guidance of an attorney to catch mistakes in papers and move things along in accordance with legal rules. SRLs usually cannot afford legal help, while law firms are not generally interested in lower dollar one-shot litigants.[13]

At the same time, legal tech companies recognize there is a market of SRLs seeking "do-it-yourself" legal guides—especially in family and will cases.[14] We can all appreciate the observed trend that one can "Google it" and find a way to do things on their own, including claims filing. Still, rules against the unauthorized practice of law make it difficult for individuals to access less expensive "helpers" who do not have law degrees. For example, real estate agents may have sufficient knowledge to help with certain real estate related legal issues, but they must be careful not to practice law.

This phenomenon is not limited to the U.S. Research in Australia[15] and Canada[16] has observed that SRLs may have different education levels and reasons for self-representation, but that most SRLs tend to have low income, have limited formal education, face unemployment, and are also slightly more likely to be male.[17] Some will have fewer social resources,[18] while others may have had bad prior experiences with counsel.[19] Furthermore, some may prefer to represent themselves.[20] Nonetheless, the common theme is that SRLs generally lack the resources to adequately represent themselves and face

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[10] Jessica K. Steinberg, *Demand Side Reform in the Poor People's Court*, 47 CONN. L. REV. 741, 749 (2015).

[11] Karl L. Branting, *An Advisory System for Pro Se Protection Order Applicants*, 14 INT'L REV. L. COMPUTERS & TECH. 357, 358 (2000).

[12] Landsman, *supra* note 7, at 450.

[13] *Id.* at 443; *see also* Mark D. Gough & Emily S. Taylor Poppe, *(Un)Changing Rates of Pro Se Litigation in Federal Court*, 45 L. & SOC. INQUIRY 567, 569-70 (2020).

[14] Landsman, *supra* note 7, at 439.

[15] JOHN DEWAR et al., LITIGANTS IN PERSON IN THE FAMILY COURT OF AUSTRALIA (2000), https://representingyourselfcanada.com/wp-content/uploads/2015/09/litigants-in-person-in-the-family-court-of-australia.pdf. Anecdotal evidence suggests that SRLs take up more court time and demand more staff and judicial attention than represented litigants; in turn they may become stressed and emotional when dealing with court staff and in court. Court staff and judicial officers also experience stress and frustration in dealing with SRLs.

[16] MARY STRATTON, ALBERTA SELF-REPRESENTED LITIGANTS MAPPING PROJECT: FINAL REPORT (2007), http://www.cfcj-fcjc.org/sites/default/files/docs/2007/mapping-en.pdf.

[17] DEWAR ET AL., *supra* note 15, at 38.

[18] STRATTON, *supra* note 16, at 13.

[19] DEWAR ET AL., *supra* note 15.

[20] STRATTON, *supra* note 16.

disadvantages when the other side is represented by counsel.[21] Accordingly, SRLs generally obtain lower value settlements and judgments.[22]

Concurrently, courts throughout the world have started embracing technology to encourage online dispute resolution ("ODR") [23] as a means for expanding access to justice ("A2J").[24] ODR refers to the use of technology and computer mediated communication ("CMC") for online negotiation, mediation, arbitration and other reimagined processes that assist parties in obtaining remedies without the time, cost and hassle of in-person processes.[25] ODR also includes self-help tools, and invites creativity in digital dispute design.[26] The key is to balance efficiency and fairness. [27]

When properly designed, ODR provides promise for opening new low-cost avenues to remedies and voice without the travel and time challenges presented by traditional in-person processes.[28] In this way, ODR has been seen as particularly helpful for SRLs, since supposedly one does not need a lawyer's assistance to use these technological tools. Nonetheless, ODR offerings to date have been fairly limited, especially with the growing reliance on video platforms like Zoom and TEAMS for mediation (which has often inaccurately been called ODR). This Article therefore seeks to build on prior ODR literature to propose a six-module system for intelligent user-centric ODR.

In prior articles, we have noted the capacities of current ODR systems[29] and introduced the six modules (which can be stand-alone tools) that may be helpful for developing intelligent user-centric ODR systems.[30] However, this Article builds significantly on this prior work to note how these six tools can be used

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[21] HAZEL GENN & YVETTE GENN, THE EFFECTIVENESS OF REPRESENTATION AT TRIBUNALS 246-47 (1989), https://www.ucl.ac.uk/judicial-institute/sites/judicial-institute/files/effectiveness_of_representation_at_tribunals.pdf.

[22] RICHARD MOORHEAD & MARK SEFTON, LITIGANTS IN PERSON: UNREPRESENTED LITIGANTS IN FIRST INSTANCE PROCEEDINGS (2005), https://orca.cardiff.ac.uk/2956/1/1221.pdf.

[23] *Id*.; see also Amy J. Schmitz, *A Blueprint for Online Dispute Resolution System Design*, 21 J. INTERNET L. 3, 3–11 (2018); Amy J. Schmitz, *There's an "App" for That: Developing Online Dispute Resolution to Empower Economic Development*, 32 NOTRE DAME J. L. ETHICS & PUB. POL'Y 1 (2018).

[24] Cortes, *supra* note 8; Amy J. Schmitz, *Expanding Access to Remedies through E-Court Initiatives*, 67 BUFFALO L. REV. 89, 101–173 (2019).

[25] John Zeleznikow, *Using Artificial Intelligence to provide Intelligent Dispute Resolution Support*, 30 GROUP DECISION AND NEGOTIATION 789, 800 (2021).

[26] ETHAN KATSH & ORNA RABINOVICH-EINY, DIGITAL JUSTICE: TECHNOLOGY AND THE INTERNET OF DISPUTES (2017).

[27] Amy J. Schmitz, *"Drive-Thru" Arbitration in the Digital Age: Empowering Consumers through Regulated ODR*, 62 BAYLOR L. REV. 178 (2010).

[28] AMY J. SCHMITZ & COLIN RULE, THE NEW HANDSHAKE: ONLINE DISPUTE RESOLUTION AND THE FUTURE OF CONSUMER PROTECTION (2017); *see also* Amy J. Schmitz, *Building on OArb Attributes in Pursuit of Justice*, *in* ARBITRATION IN THE DIGITAL AGE: THE BRAVE NEW WORLD OF ARBITRATION 182 (Maud Piers et al., eds., 2018).

[29] Amy J. Schmitz and Janet Martinez, *ODR Providers Operating in the U.S.*, *in* ONLINE DISPUTE RESOLUTION – THEORY AND PRACTICE: A TREATISE ON TECHNOLOGY AND DISPUTE RESOLUTION (Rainey et al, eds., 2d ed. 2021).

[30] John Zeleznikow, *Negotiation, Online Dispute Resolution, And Artificial Intelligence*, *in* HANDBOOK OF GROUP DECISION AND NEGOTIATION 1125, 1129–47 (D. Marc Kilgour & Colin Eden eds., 2nd ed. 2021).

in a modular system. Moreover, the Article notes gaps in current offerings and provides direction with respect to ethical considerations that arise in creating legal tech to assist SRLs.

Indeed, this Article challenges the legal tech community to go further in developing and providing low-cost tools that act as six potential "modules" in a holistic system for SRLs to enjoy greater access to justice. These modules can be used independently of each other as litigants may not need all six modules in any given case. Instead, they are like Lego blocks—allowing litigants to choose the ones that they need to fit their cases. Furthermore, the availability of the six modules may assist the judicial system, as SRLs use modules to better represent themselves in court. Of course, this is an ambitious ask, but well worth it if intelligent legal tech can be used to help SRLs, instead of merely providing even greater power to well-resourced companies that can afford fancy data analytics to boost their chances of success in court.

The Article proceeds as follows. Part II discusses what legal tech and ODR can mean for SRLs and how these tools can assist individuals in accessing remedies and justice. Part III provides specific examples of ODR processes and agreement technologies. Part IV articulates the six-module system and identifies gaps in the current ODR systems in an effort to encourage the development of technologies that address these gaps. While legal tech companies are quickly creating platforms for ODR, there is a need for further development of other tools to serve the various needs of SRLs. With the number of legal aid lawyers on the downturn and SRLs on the uptick, policymakers and legal tech providers should work together to harness the capacity of technology to expand A2J for lawyerless individuals.

## II. WHAT ODR MEANS FOR SELF-REPRESENTED INDIVIDUALS

### *A. What is ODR*

Black's Law Dictionary defines litigation "as a contest in a court of law for the purpose of enforcing a right or seeking a remedy."[31] ADR is commonly recognized as applying to processes that are alternatives to the traditional legal methods of solving disputes.[32] The ADR movement began to flourish after a conference in 1976 emphasizing dissatisfaction with litigation.[33] Parties craved alternatives to court. Soon after, Frank Sander introduced the idea of the Multi-door Courthouse movement and encouraged ADR as an alternative door to accessing justice.[34] Fast-forward to the late 1990s and the ODR

[31] *Litigation*, BLACK'S LAW DICTIONARY (9th ed. 2009).

[32] Charlton, R. 2000, *Dispute Resolution Guidebook*, LBC Information Service, NSW.

[33] Am. Bar Ass'n, National Conference on the Causes of Popular Dissatisfaction with the Administration of Justice 3 (1976).

[34] Frank E. A. Sander, *The Multi-Door Courthouse*, 3 BARRISTER 18 (1976). At the 1976 Pound Conference, "Sander laid out his vision for a courthouse of the future, which would essentially sort disputes into different categories—some that should be litigated, and others that should go through other processes, such as facilitation, mediation, or arbitration." Lara Traum & Brian Farkas, *The History and Legacy of the Pound Conferences*, 18 CARDOZO J. OF CONFLICT RESOL. 677, 685 (2017).

movement began to take shape as innovators sought ways for ADR to move online.

Some of the early software in the AI and Law world focused on providing advice about the likely outcomes and costs involved in pursuing litigation. They did not model the domain or offer advice but were very useful in promoting settlements.[35] Examples of such systems include TAXMAN[36] and the Latent Damage Advisor.[37] Researchers speculated that eventually such expert systems could change the nature of legal practice.[38]

The ODR field has now expanded to allow for greater innovation with the idea that technology is the fourth party in dispute resolution—it is not just the two parties and a neutral who helps end the dispute—there is now the fourth party, namely the technology.[39] Furthermore, technologies have vastly expanded beyond the telephone.[40] Zeleznikow notes:

> Still, ODR is a natural evolution of convening over the telephone.[41] Technology now offers ODR parties different levels of immediacy, interactivity, and media richness to choose from. Through some platforms, parties can choose to communicate through text, real-time video, and variations thereof that allow them to see each other and often, a mediator. However, ODR is far more than a range of new communication platforms. ODR developers seek to create intelligent agents and robust negotiation support systems to assist humans in achieving better outcomes than they would achieve themselves, even when they perform to the peak of their abilities.[42]

Some examples of ODR first developed from e-commerce, using computer-mediated-communication ("CMC").[43] These examples include its use by eBay and PayPal.[44] Over the past decade, however, practical, usable intelligent negotiation support systems have finally been developed. These include Rechtwijzer in the Netherlands and UK[45] and the Civil Resolution Tribunal

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[35] Zeleznikow, *supra* note 30, at 1129–31.

[36] L. Thorne McCarty, *Reflections on TAXMAN: An Experiment in Artificial Intelligence and Legal Reasoning*, 90 HARV. L. REV. 837 (1977).

[37] DR. RICHARD E. SUSSKIND, THE LATENT DAMAGE SYSTEM: A JURISPRUDENTIAL ANALYSIS 23–32 (1989).

[38] Edward F. Sherman & Stephen O. Kinnard, *The Development, Discovery, and Use of Computer Support Systems in Achieving Efficiency in Litigation*, 79 COLUM. L. REV. 267, 268 (1979).

[39] *See* Alan Gaitenby, *The Fourth Party Rises: Evolving Environments of Online Dispute Resolution*, 90 U. TOL. L. REV. 38, 371 (2006).

[40] For a discussion of the telephone as a source for Dispute Resolution, see Elizabeth Wilson-Evered et al., *Towards an On-Line Family Dispute Resolution Service in Australia* (2011); Marta Poblet, *Mobile Technologies for Conflict Management*, *in* 2 BERLIN LAW, GOVERNANCE AND TECHNOLOGY SERIES 125–140 (2011).

[41] SCHMITZ & RULE, *supra* note 28.

[42] Zeleznikow, *supra* note 30, at 1130.

[43] M. Ethan Katsh, *Dispute Resolution in Cyberspace*, 28 CONN. L. REV. 953 (1995).

[44] COLIN RULE, ONLINE DISPUTE RESOLUTION FOR BUSINESS: B2B, ECOMMERCE, CONSUMER, EMPLOYMENT, INSURANCE, AND OTHER COMMERCIAL CONFLICTS (2002).

[45] Roger Smith, *Ministry of Justice for England and Wales Dives into the Deep Water on Online Dispute Resolution*, 23 DISP. RESOL. MAG. 28 (2016).

(CRT) in British Columbia, Canada.[46] ODR has finally moved beyond e-commerce, and beyond the private realm as court ODR projects are being implemented and ODR is finally being used for non-financial disputes.[47]

### *B. Why User-Centric Computing is Important*

Whilst there is no generic SRL, many SRLs turn to ODR to resolve disputes related to debt, employment, family relationships, and a wide spectrum of other life problems. If non-professional SRLs hope to use ODR software with success, then such software must be user-friendly. Accordingly, scholars like Margaret Hagan advocate for a user-centric design approach to access to justice in ODR.[48] According to Tim Brown,[49] human-centric design focuses on users' experiences to develop solutions that are both experimental and iterative.

Hagan's research into how judicial systems can serve non-professional SRLs identifies seven key recommendations for courts and Self Help Centers to focus on when making their systems more usable and efficient:

> 1. Courts must coordinate Navigable Pathways, which help people understand the whole sequence of events that will face them during their legal processes and more effectively assist them through that process.
> 2. People need more robust and user-friendly tools to navigate through the court.
> 3. People need warm and efficient welcome experiences to encourage them to follow through with the procedures.
> 4. Paperwork should be redesigned to be more visually clear, prioritized, and manageable.
> 5. Pre-court appearances - the development of more online court tools that can help people prep for their court visits and get their tasks done correctly.
> 6. Better work stations and materials in courts to prepare litigants for their appearances.
> 7. The court system needs to develop a culture of usability, testing, and feedback.[50]

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[46] Shannon Salter & Darin Thompson, *Public-Centered Civil Justice Redesign: A Case Study of the British Columbia Civil Resolution Tribunal*, 3 MCGILL J. DISP. RESOL. 113 (2016).

[47] KATSH & RABINOVICH-EINY, *supra* note 26; Amy J. Schmitz & Leah Wing, *Beneficial and Ethical ODR for Family Issues*, 59 FAM. CT. REV. 250 (2021); Amy J. Schmitz, *Measuring "Access to Justice" in the Rush to Digitize*, 88 FORDHAM L. REV. 2381–406 (2020); Amy J. Schmitz, *Addressing the Class Claim Conundrum with Online Dispute Resolution*, 2020 J. DISP. RESOL. 361–90 (2020); Amy J. Schmitz, *Expanding Access to Remedies through E-Court Initiatives*, 67 BUFFALO L. REV. 101–73 (2019).

[48] Margaret D. Hagan, *A Human-Centered Design Approach to Access to Justice: Generating New Prototypes and Hypotheses for Interventions to Make Courts User-Friendly*, 6 IND. J. & SOC. EQUAL. 199, 200 (2018).

[49] Tim Brown, *Design Thinking*, 86:6 HARV. BUS. REV. 84 (2008).

[50] Hagan, *supra* note 48, at 201. For an example of a Self Help Center, see SAN FRANCISCO SUPERIOR COURT, ACCESS CENTER, https://www.sfsuperiorcourt.org/self-

Whilst these recommendations are most relevant for ODR developers who are members of the legal tech community, they are also important for dispute system designers, legal academics and ODR users. It is important to reiterate that unless ODR systems are user-centric, they will not be used.

An examination of the usability of Utah's ODR program by researchers at the University of Arizona provides additional support for a user-centric design approach.[51] Based on an analysis focused on functionality, usability, accessibility, and comprehension issues, the report makes five overall recommendations for improvement: (1) ease the transition from paper to platform, (2) streamline the registration process, (3) simplify document sharing and review, (4) improve ODR information and help, and (5) clarify legal information and user options.[52] These final two points are incredibly important, especially for SRLs.

Providing user-centric design also means that the system should provide what the users need. It is not sufficient that the system is easy to use. The next section will therefore discuss decision and negotiation support tools. Decision support tools generally involve computer-based information systems that combine models and data in an attempt to solve nonstructured problems with extensive user involvement.[53] The next section will explore how decision and negotiation support tools can support SRLs.

### *C. How Decision and Negotiation Support Tools Can Help Self-Represented Litigants*

The COVID-19 pandemic has greatly enhanced the need for and the use of ODR.[54] Samuel Dahan and David Liang argue that the digital transformation toward remote justice in response to the COVID-19 pandemic was not a paradigm shift; the root of this transition lies in the long-standing access to justice problem which was exacerbated, not caused, by the COVID-19 pandemic.[55] The authors suggest that the role of technology in access to justice is much greater than simply a digitization of long-standing practices. Rather, technological innovations in the legal field provide opportunities to improve access to legal representation and to refine court processes. Non-state initiatives, such as MyOpenCourt, can help alleviate the gaps in access to justice. Long term, the authors suggest that using direct-to-public ("DTP") tools such as legal assistance systems powered by AI can help push toward their vision of a consistent global system of online dispute resolution. However, the use of DTP tools also raises concerns regarding privacy, security, and the unauthorized

help?__cf_chl_captcha_tk__=pmd_2SxHtql3NiAQXpsVLlrVQKsvQGtFqevcjyIbeesAqXs-1635131821-0-gqNtZGzNAzujcnBszQi9 (last visited Oct. 25, 2021).

[51] STACY BUTLER ET AL., THE UTAH ONLINE DISPUTE RESOLUTION PLATFORM: A USABILITY EVALUATION AND REPORT ii (2020).

[52] *Id.*

[53] EFRAIM TURBAN, DECISION SUPPORT AND EXPERT SYSTEMS: MANAGEMENT SUPPORT SYSTEMS 874 (Prentice Hall, 4th ed. 1995).

[54] Tania Sourdin & John Zeleznikow, *Courts, Mediation and COVID-19*, 48 AUSTL. BUS. L. REV. 138, 138–158 (2020).

[55] Samuel Dahan & David Liang, *The Case for AI-Powered Legal Aid*, 46 QUEEN'S L. J. 415 (2021).

practice of law. In light of this, the authors call for greater research on the legality of DTP AI tools.

Jean-Francois Roberge and Veronique Fraser argue that an optimal ODR platform, from a commercial standpoint, should provide guides and flowcharts, an adaptive question and answer interface, transparent ethical commitments, outcome predictions, an expedited procedure leading to an enforceable outcome, a proportional cost model, a mediation process, and a range of communications.[56] They claim that the commercial world could learn from the technology in family law ODR. We shall consider these arguments later in the paper.

1. Use of Artificial Intelligence in Providing Negotiation Decision Support

We believe that Artificial Intelligence ("AI") can play an important role in providing advice and support for those engaged in a negotiation process. To indicate how AI can help, a rudimentary knowledge of the earlier forms of AI is useful. Earlier forms of AI include rule-based and case-based reasoning, developed in the 1960s and 1980s, respectively, and machine learning, which has been used since the 1990s. Rule-based reasoning, case-based reasoning, and machine learning are the essential tools for building intelligent user-centric ODR systems—ones that can be used by SRLs.

Before discussing rudimentary AI principles, we need to examine whether, when using AI to support self-represented litigants, the system should merely give advice, or whether it actually makes a decision (much like a robot). Thus, the issue of ethically using AI is important. The National Institute of Standards and Technology in the United States has begun to identify ethical standards around the use of AI that can be helpful as we explore the use of AI in providing decision support in ODR.[57] There are potentially harmful biases in AI, as well as concerns about trust, accuracy, explainability, interpretability, privacy, reliability, robustness, safety, and security.[58] Public distrust about AI includes the belief, backed up by real-world examples, that social biases can be automated within AI and that technology will perpetuate those biases on a widespread scale.[59] Because AI exists in so many contexts, it is difficult to develop overall principles for bias management.[60] Nonetheless, a three-stage process may be helpful in ODR: 1) pre-design, where the technology is devised, defined, and elaborated; 2) design and development, where the technology is constructed; and 3) deployment, where technology is used by, or applied to, various individuals or groups.[61] There should be interaction among stakeholder groups, risk management, and standards development across all three stages.[62]

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[56] Jean-Francois Roberge & Veronique Fraser, *Access to Commercial Justice: A Roadmap for Online Dispute Resolution (ODR) Design for Small and Medium-Sized Businesses (SMEs) Disputes*, 35 OHIO ST. J. ON DISP. RESOL. 1, 11–12 (2019).

[57] Reva Schwartz et al., *A Proposal for Identifying and Managing Bias within Artificial Intelligence*, NAT'L INST. OF STANDARDS AND TECH. 1 (2021).

[58] *Id.*

[59] *Id.* at 2.

[60] *Id.*

[61] *Id.* at 6.

[62] *Id.*

There are several common strategies to approaching AI design in this context. The first AI systems were developed in the 1960s. One early well-known rudimentary example was the rule-based Eliza program of Weizenbaum, which simulated the advice of a psychologist.[63] In the 1980s, case-based reasoning systems were developed, whilst machine learning approaches commenced in the 1990s.[64]

a. Rule-based Reasoning[65]

In the rule-based approach,[66] the knowledge of a specific legal domain is represented as a collection of rules of the form:

IF <condition(s)> THEN action/conclusion.

For example, consider the domain of driving offenses in Victoria, Australia. Drivers can lose their license for either drunk driving or exceeding a specified number of points in a certain time period. More specifically, probationary drivers (those who have held a driver's license for less than three years) are not permitted to have even a trace of alcohol in their blood. Other drivers must have a blood alcohol level not exceeding 0.05%. This knowledge can be modelled by the following rules:

- (a) IF drive(X) & (blood_alcohol(X) > .00) & (license(X) < 36) THEN license_loss (x);
- (b) IF drive(X) & (blood_alcohol(X) > .05) & (license(X) >= 36) THEN licens e_loss(X)

We have noticed that rule-based reasoning has been widely used to build compliance systems—whether it be related to road regulations or social security debt.[67]

b. Case-based Reasoning

Case-based reasoning is the process of using previous experience to analyze or solve a new problem, explain why previous experiences are or are not similar to the present problem, and adapt past solutions to meet the requirements.[68] Because of the role that precedents play in common law domains, and the fact that case-based systems are excellent at performing analogical reasoning, case-based reasoning is a useful AI tool for providing decision support. Using the principle of *stare decisis* to decide a new case, legal decision-makers search for the most similar case decided at the same or higher level in the hierarchy. The best-known legal case-based reasoner is the HYPO system of Kevin Ashley.[69]

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[63] Joseph Weizenbaum, *ELIZA – A Computer Program for the Study of Natural Language Communication Between Man and Machine*, 9 COMM. OF THE ACM 36, 36-45 (1966).

[64] For an excellent introduction to the use of artificial intelligence in law, see JOHN ZELEZNIKOW & DAN HUNTER. BUILDING INTELLIGENT LEGAL INFORMATION SYSTEMS: REPRESENTATION AND REASONING IN LAW (Kluwer Law and Taxation Publishers, 1994).

[65] *Id.*

[66] *Id.* at 315.

[67] *See id.*

[68] *Id.* at 296.

[69] Kevin D. Ashley, *Reasoning with Cases and Hypotheticals in HYPO*, 34.6 INT. J. OF MAN-MACHINE STUD. 753, 753–96 (1991).

Case-based systems are often the basis of tutoring systems built for law students.[70]

c. Growth and Capacity for Machine Learning

Machine learning is that subsection of learning in which the AI system attempts to learn automatically.[71] Stranieri and Zeleznikow showed that machine learning could be gainfully used to model legal reasoning. In the Split-Up system,[72] they provided advice about the distribution of marital property following divorce in Australia by using machine learning to offer advice about BATNAs[73] (a BATNA is used to inform disputants of the likely outcome if the dispute were decided by a decision-maker, e.g., a judge or arbitrator).

Richard Susskind discusses two tiers of online courts.[74] The first tier uses rule-based and case-based systems as described above. Rechtwijzer and the CRT (which are discussed later in this paper) are examples of the first tier. In the second tier, Susskind imagines a machine learning system helping parties by predicting the likely outcome of their case were it to come before a human judge.

Dahan and Liang expand on the work that Stranieri and Zeleznikow conducted for Victoria Legal Aid in the early 2000s.[75] At that time, the task of determining eligibility for legal aid chewed up 60% of Victoria Legal Aid's operating budget, yet provided no services to its clients. Stranieri and Zeleznikow developed the rule-based GetAid system which advised clients about their eligibility for legal aid, saving the organization money and more efficiently providing prospective clients with very important advice.[76]

It is possible to use Machine Learning to provide legal advice, as stated above. Stranieri and Zeleznikow did so in the Split-Up system twenty-five years ago.[77] Rajkomar et al. argue that "a central challenge in building a machine-

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[70] KEVIN D. ASHLEY, ARTIFICIAL INTELLIGENCE AND LEGAL ANALYTICS: NEW TOOLS FOR LAW PRACTICE IN THE DIGITAL AGE (2017).

[71] ANDREW STRANIERI & JOHN ZELEZNIKOW, KNOWLEDGE DISCOVERY FROM LEGAL DATABASES 69 (2006).

[72] Andrew Stranieri et al., *A Hybrid Rule–Neural Approach for the Automation of Legal Reasoning in the Discretionary Domain of Family Law in Australia*, 7.2 A.I. AND LAW 153–83 (1999).

[73] ROGER FISHER & WILLIAM URY, GETTING TO YES: NEGOTIATING AGREEMENT WITHOUT GIVING IN (Bruce Patton ed., 2nd ed.1981). Fisher and Ury introduced the notion of principled negotiation. Fundamental to principled negotiation is the concept of a BATNA. A BATNA is your best alternative to a negotiated agreement. The reason you negotiate with someone is to produce better results than would otherwise occur. If you are unaware of what results you could obtain if the negotiations are unsuccessful, you run the risk of entering into an agreement that you would be better off rejecting; or rejecting an agreement you would be better off entering into.

[74] RICHARD E. SUSSKIND, ONLINE COURTS AND THE FUTURE OF JUSTICE 274 (2019).

[75] John Zeleznikow, *Can Artificial Intelligence and Online Dispute Resolution Enhance Efficiency and Effectiveness in Courts*, 8 INT'L J. CT. ADMIN. 30 (2017).

[76] John Zeleznikow, *An Australian Perspective on Research and Development Required for the Construction of Applied Legal Decision Support Systems*, 10.4 A.I. AND LAW 237, 237–60 (2002).

[77] *Id.*

learning model is assembling a representative, diverse data set."[78] Whilst this is possible in medicine, it is very difficult in law. There is much more medical data, which is generally cleaner than legal data. Thus, the use of machine learning in law will never model its use in medicine. Family law is perhaps the legal domain most appropriate for the use of information technology because it has more data than other domains and most clients cannot afford expensive, time-consuming litigation.

As technologies develop and more AI systems use a form of machine learning, it becomes even more important to foster discussions about creating standards and a risk-based framework.[79] Bias reduction techniques must be flexible, with room for innovation and context-specific application.[80] Figuring out which techniques to incorporate into such a framework requires a broad representation of disciplines and stakeholders.[81]

In the following section we shall investigate Branting's work for the Idaho courts and the lessons learned regarding developing and providing advisory systems for SRLs.

### 2. Information Technology to Assist Self-Represented Litigants

As early as 2000, Karl L. Branting claimed that "domestic abuse victims were particularly likely to have few resources and little opportunity to obtain the services of a lawyer." [82] He stated that the growth of the consumer movement had increased the trend for self-represented litigation. Indeed, the growing availability of books, document kits, and computerized forms, and the increasing availability of legal materials on the Internet, have enhanced opportunities for SRLs.

Branting developed a variety of "advisory systems" for SRLs. An advisory system is a computer system intended to provide specialized information or advice to a non-specialist user. In his advisory systems, Branting sought to inform users about potential legal relief that may fit their particular problems and goals. His systems used a mix of tutorial, textual, and hybrid techniques. This included a "rule-based legal analysis component" that "determined whether the user could make a prima facie showing that the substantive requirements for some form of legal relief were established," thereby eliciting "facts relevant to the applicable legal rules from the user."[83]

An example of an advisory system that Branting developed in 2000 is the Protection Order Advisor ("POA"):

> It was an advisory system for pro se protection order applicants developed in collaboration with the Idaho Supreme Court. This POA system grew from a decision by the Idaho Supreme Court

[78] Alvin Rajkomar, Jeffrey Dean & Isaac Kohane, *Machine Learning in Medicine*, 380 NEW ENG. J. MED. 1347–58 (2019).

[79] Schwartz et al., *supra* note 57.

[80] *Id.*

[81] *Id.*

[82] Karl L. Branting, *Advisory Systems for Pro Se Litigants*, PROC. OF THE 8TH INT'L CONF. ON A.I. AND LAW 139 (2001).

[83] *Id.* at 141.

> Technology Committee to fund a demonstration project to evaluate the applicability of AI to judicial administration. Several different domains for a demonstration project were considered, including sentencing, pre-trial release, child support, and protection order applications. Even though the substantive legal rules governing protection orders are relatively simple, the Technology Committee ultimately selected protection order application assistance because the inability to offer advice to pro se protection order applicants was distressing to staff in Idaho courts. The Technology Committee felt that this distress could be alleviated by making personal computers with an advisory program available in district court lobbies. This allowed protection order applicants to obtain answers to many of their questions about whether they satisfy the requirements for a protection order and to draft a petition. It relieved court staff of the painful choice between providing unauthorized legal advice and ignoring the needs of domestic violence victims.[84]

The development of legal decision support systems can lead to consistency, transparency, and efficiency in the provision of legal advice. These technology-based systems can also provide increased support for dispute resolution by offering advice about litigation alternatives and "best alternative to a negotiated agreement" (BATNA)—something lawyers look to in helping clients. Having this type of support can encourage litigants to avoid the potential costs and emotional stress of legal proceedings.[85] Legal decision support systems advise SRLs of appropriate processes, outcomes, and courses of action. Appropriate systems can also assist users to engage in meaningful trade-offs.[86] SRLs need this sort of support, which represented parties currently enjoy with the help of competent counsel.[87]

In 2000, the Branting POA showed how rule-based systems could be used to assist SRLs. Eighteen years later, courts started developing ODR programs mainly focused on using the internet to facilitate negotiation and mediation through simple communication. However, the universe of ODR technologies continues to grow and the possibilities are nearly endless if proper and ethical design remains at the core.[88]

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[84] *Id.*

[85] Stranieri et al., *supra* note 72, at 153–83.

[86] Emilia Bellucci & John Zeleznikow, *Developing Negotiation Decision Support Systems that Support Mediators: A Case Study of the Family Winner System*, 13 A.I. AND LAW 233, 233–71 (2006).

[87] John Zeleznikow, *Using Web-Based Legal Decision Support Systems to Improve Access to Justice*, 11 INFO. & COMMS. TECH. L. 15, 17 (2002).

[88] Amy J. Schmitz, *Dangers of Digitizing Due Process*, in AI AND LAW: A CRITICAL OVERVIEW (Karim Benyekhlef ed., Les Éditions Thémis, 2021); Amy J. Schmitz, *Measuring "Access to Justice" in the Rush to Digitize*, 88 FORDHAM L. REV. 2381–2406 (2020).

## III. EXAMPLES OF ODR PURPORTING TO USE AI, DATA ANALYTICS OR VARIATIONS

AI can be a tool in providing intelligent dispute resolution ("IDR") support.[89] Early negotiation support systems did not utilize AI, but rather tended to be template-based, with a primary focus on informing users of issues and the level of disagreement between parties.[90] However, legal tech companies increasingly seek to use more sophisticated technology, including algorithms and data analytics, to advance their systems. The AI used by these legal tech companies tends to be rule-based or case-based reasoning, with an aim toward eventually including machine learning.[91] Although it is unclear whether any ODR provider is in fact using machine learning, the following are some examples of providers who seek to go beyond basic technologies for case management and communication facilitation.[92]

In this section, we will discuss a wide variety of ODR systems, including the British Columbia Civil Resolution Tribunal, Rechtwijzer, Split-Up, Our Family Wizard, Family-Winner, SmartSettle, and CoParenter, as well as the work of specific Laboratories (Conflict Analytics and Cyberjustice) and the issue of triaging. Our goal is to develop a process for classifying intelligent ODRs which can support SRLs.

### *A. British Columbia Civil Resolution Tribunal*

Canada has been a world leader in establishing ODR programs.[93] The British Columbia Ministry of Justice has created a robust ODR court called the Civil Resolution Tribunal (CRT).[94] It began when the British Columbia government passed the CRT Act in 2012 to create an ODR program covering small claims and condominium property, or "strata," disputes.[95] The main impetus for the Act was the exorbitant litigation costs in Canada, with the average two-day trial costing $31,330 in 2013, while the median Canadian family after-tax income was just over $50,000 in the same year.[96] In 2019, the CRT began resolving claims for personal injuries arising out of vehicle accidents, including claims over benefits such as medical and income benefits.[97]

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[89] Zeleznikow, *supra* note 25, at 789.

[90] *Id.* at 792.

[91] *Id.*

[92] *Id.* at 793.

[93] Shannon Salter, *ODR and Justice System Integration: British Columbia's Civil Resolution Tribunal*, 34 (1) WINDSOR Y.B. ACCESS TO JUST., 112, 116 (2017).

[94] *Id.* at 118.

[95] *Id.*

[96] *Id.*

[97] Insurance (Vehicle) Amendment Act (Bill 20-2018) (B.C., Can.), http://www.bclaws.ca/civix/document/id/bills/billscurrent/3rd41st:gov20-3; Civil Resolution Tribunal Amendment Act (Bill 22-2018) (B.C., Can.), http://www.bclaws.ca/civix/document/id/bills/billscurrent/3rd41st:gov22-1.

The CRT process involves four phases: problem diagnosis, negotiation, facilitation, and a CRT decision (adjudication), if needed.[98] The system relies on a knowledge base populated with information gathered from mainly human experts.[99] The first phase involves problem diagnosis and self-help strategies ("Solution Explorer").[100] The Solution Explorer uses simple, rule-based data analytics as it leads individuals through a series of questions and provides legal information and self-help tools based on how one answers these questions.[101] The Solution Explorer has been called an expert system that imitates or emulates the feedback, guidance, or reasoning of a human expert.[102] The system aims to deliver targeted information to the user about the problem or issue, including the identification and explanation of potentially relevant rights and obligations each party has.[103] Furthermore, the design is human-centric, in that it follows a simple question-and-answer format using plain language (specifically at a sixth-grade reading level) to guide users through problem-solving with respect to their disputes.[104]

This initial Solution Explorer phase is important because it helps users better understand their problems and then provides self-help tools designed to help resolve the problems.[105] The tools can be very specific to the problems or issues experienced by the user.[106] This information can be provided in written text or through multimedia to assist those with language or literacy barriers.[107] At the end of the Solution Explorer process, the user is taken to a customized summary report.[108] This report provides a natural language summary of the user's situation and a list of self-resolution options and alternatives.[109] If the user is unable to resolve the problem using these options, they can then move to the next phases of the dispute resolution process.[110]

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[98] HOW THE CRT WORKS, CIVIL RESOLUTION TRIBUNAL, https://civilresolutionbc.ca/how-the-crt-works/ (last visited Jul. 19, 2021).

[99] *Id*.

[100] Salter & Thompson, *supra* note 46 at 129.

[101] Salter, *supra* note 93, at 120.

[102] *Id*. at 125.

[103] *Id*. at 130.

[104] Bill Henderson, *Is Access to Justice a Design Problem?*, LEGAL EVOLUTION, (Jun. 23, 2019), https://www.legalevolution.org/2019/06/is-access-to-justice-a-design-problem-099/.

[105] Salter, *supra* note 93, at 120.

[106] *Id*.

[107] *Id*.

[108] *Id*. at 131.

[109] *Id*.

[110] Knowledge engineers met with volunteer lawyers and asked them questions about the most common issues that arose in their practice areas, as well as the legal information they thought people needed to know. After this, the CRT team put this information into mind maps to create the legal information pathways that serve as the foundation for the Solution Explorer. Every three months, changes are implemented to the Solution Explorer based on public feedback and data analytics. These improvements can range from new content, changes to the language, layout, self-help tools, etc. The CRT's methodology includes gathering expert knowledge, modelling expert knowledge in a decision tree structure through mind-mapping software, and entering the expert knowledge into the knowledge base in a rule-based format. Furthermore, the CRT team is expanding the knowledge base by working with students at

The next phases of the CRT process focus more on communication through an ODR portal, which begin with phase two, party-to-party negotiation. If phase two fails, the process moves to facilitated mediation.[111] If after mediation parties are still unable to reach a mutually agreeable solution, an online adjudicator will make the ultimate decision after online or telephonic hearings.[112] If hearings are not needed, the arbitrator may render a decision based solely on digital evidence and submissions. Overall, this ODR program expands access to remedies in that it is available at any time of the day or night. Furthermore, parties can access the portal on computers or mobile phones; the CRT also provides telephone services, and in rare cases, in-person hearings where necessary. Moreover, the fees are kept to a minimum, and individuals can easily complete the process without using lawyers. All of the judgments rendered, whether voluntarily or through the adjudicator, are enforced by the court.[113]

Although the CRT's use of AI is mainly within Solution Explorer, it is also experimenting with AI technology that analyzes texts and prompts the user when the framing appears to be inflammatory. For example, the system may flag an expletive and say: "[your reply] sounds pretty hostile, are you sure you want to phrase it this way?"[114] This would likely be incorporated in the party-to-party negotiations phase. There is also a "report abuse button" already incorporated into negotiations, but additional flagging could help prevent potentially abusive or disrespectful conduct.[115]

The CRT releases statistics on a regular basis, indicating user satisfaction. For example, the September 2021 user survey results indicated that 75% of respondents would recommend the CRT process to others.[116] The CRT is also expanding its jurisdiction as more individuals use the system.[117] It continually

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Thompson Rivers University Faculty of Law to create content in areas. The CRT currently has Solution Explorer pathways for the following types of disputes: motor vehicle accidents and injuries; strata property owners and tenants; strata property council or section executive; small claims for buying and selling, housing, loans and debts, construction, employment, insurance, property, and personal injury; and societies and cooperative associations. Shannon Salter, *What is the Solution Explorer?*, BARTALK, https://www.cbabc.org/BarTalk/Articles/2018/April/Features/What-is-the-Solution-Explorer (last visited Jul. 19, 2021).

[111] *See* HOW THE CRT WORKS, *supra* note 98.

[112] *See id.*

[113] *See FACTSHEET: Civil Resolution Tribunal*, GOV'T B.C. (Feb. 7, 2017, 12:57 PM), http://web.archive.org/web/20180709201704/http://news.gov.bc.ca/factsheets/civil-resolution-tribunal.

[114] Bill Henderson, *supra* note 104.

[115] *Id.*

[116] PARTICIPANT SATISFACTION SURVEY, CIVIL RESOL. TRIB. (Sept. 2021), https://civilresolutionbc.ca/participant-satisfaction-survey-september-2021/ (last visited October 23, 2021).

[117] Salter & Thompson, *supra* note 46; *see also e.g.*, *Online dispute resolution works! Here's how*, A.B.A. (Mar. 2018), https://www.americanbar.org/news/abanews/publications/youraba/2018/march-2018/british-columbia-odr-system-handles-14-000-cases-in-first-7-mont/; Elizabeth Raymer, *B.C.'s Civil Resolution Tribunal keeps 'doors open' during pandemic*, CANADIAN LAWYER (Mar. 27, 2020), https://www.canadianlawyermag.com/practice-areas/adr/bcs-civil-resolution-tribunal-keeps-doors-open-during-pandemic/328037.

gathers data and feedback aimed to improve the system.[118] In June 2021, for example, 804 people utilized the Solution Explorer for strata property (condominium disputes), 2,332 people used it for small claims, 403 people used it for motor vehicle accidents, 160 people used it for enhanced accident benefits, and 110 people used it for societies & cooperative associations conflicts.[119] It is unclear from the data provided whether these were unique people or the same people using it for different cases. Building on research, it is likely that future developments will utilize AI.

### *B. Rechtwijzer*

The Dutch platform Rechtwijzer[120] (translated as Roadmap to Justice) was designed to support separating couples. The developers state that the aim of the system is "to empower citizens to solve their problems by themselves or together with his or her partner" and "[i]f necessary," to "refer[] people to the assistance of experts."[121] Couples pay €100 for access to the Rechtwijzer system. The system commences by asking each partner for personal information such as their age, education, and income. It also asks each partner's priorities in the dispute, such as whether they want the children to live with only one parent or part-time with each, and other relevant preferences. This process can be classified as case management.

The Rechtwijzer platform has a diagnosis phase, an intake phase for the initiating party, and then an intake phase for the responding party.[122] Following the completion of the intake process, parties are encouraged to commence working on agreements on the issues that regularly occur when couples separate.[123] These may include future communication channels, issues related to child welfare, property issues (including housing, money, and debts), as well as child support and spousal maintenance.[124]

The prevalent dispute resolution model in Rechtwijzer is integrative negotiation,[125] focusing upon the children's and parents' interests rather than haggling about rights. Nevertheless, the ex-partners are also informed of relevant processes for dividing property, child support, and arranging visitation rights. This allows the disputants to reach an agreement based on informed

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[118] CRT STATISTICS SNAPSHOT, CIVIL RESOL. TRIB. (June 2021), https://civilresolutionbc.ca/crt-statistics-snapshot-june-2021/ (last visited Jul. 19, 2021).

[119] *Id.*

[120] Laura Kistemaker, *Rechtwijzer and Uitelkaar. nl. Dutch Experiences with ODR for Divorce*, 59.2 FAM. CT. REV. 232, 232–243 (2021).

[121] *Id.* at 235.

[122] *Id.* at 234.

[123] *Id.*

[124] *Id.*

[125] RICHARD E. WALTON & ROBERT B. MCKERSIE, A BEHAVIORAL THEORY OF LABOR NEGOTIATIONS: AN ANALYSIS OF A SOCIAL INTERACTION SYSTEM (McGraw-Hill New York 1965) introduced the concept of integrative negotiation. In integrative approaches to negotiation the goal is to *expand the pie* prior to dividing a larger pie. Engaging in integrative negotiation leads to a *win-win* or *all gain* approach.

consent,[126] and essentially allows the parties to "Bargain in the Shadow of the Law."[127] Agreements that are accepted by the disputants are then reviewed by an independent lawyer.

The platform uses algorithms to find what issues disputing parties agree upon. In the situation where the solutions proposed by the Rechtwijzer system are not accepted by the couple, the disputants are encouraged to request a mediator (this step costs an additional €360) or ask for a binding decision to be made by an adjudicator. Until the step where adjudication is requested, the use of the Rechtwijzer system is voluntary and non-binding. The initial goal of the Rechtwijzer developers was to have a system that was self-financed, primarily through user contributions. Sadly, this has not occurred, primarily for commercial reasons unrelated to the quality of the system.

In 2017, the collaborators behind Rechtwijzer dissolved the platform because of the difficulties in making the service financially viable.[128] In its wake, some of the team members behind Rechtwijzer formed Justice42[129], a platform that offers similar services to a more targeted population in the Netherlands.[130] The new system seeks to provide both online and offline services.[131] It also utilizes a group of case managers that are more involved in the process compared to the original Rechtwijzer system. The service includes the ability to create parenting plans for non-married couples, which is now required in the Netherlands.[132] While the platform represents a scaled-back version of the original service, it is intended to achieve the same goals and address the same values.[133]

Maurits Barendrecht, the developer of both Rechtwijzer and Justice42, claims that ODR can be effective. Using such a platform can be a satisfactory experience for the users, reducing stress and placing them in control over their future. Outcomes can be sustainable and fair and relationships can be improved. Barendrecht believes that Rechtwijzer failed because the government

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[126] Informed consent is a "person's agreement to allow something to happen, made with full knowledge of the risks involved and the alternatives." *Informed Consent*, BLACK'S LAW DICTIONARY (11th ed., 2019)

[127] Robert Mnookin & Lewis Kornhauser, *Bargaining in the Shadow of the Law: The Case of Divorce*, 88 YALE L.J. 950 (1979). Mnookin and Kornhauser argue that parties in the United States negotiate the terms of a divorce in the shadow of U.S. matrimonial law rather than pursue their respective rights in a courtroom and that the legal rights of each party can be understood as bargaining chips that can influence settlement outcomes.

[128] Roger Smith, *Goodbye, Rechtwijzer: hello, Justice42*, LAW, TECHNOLOGY AND ACCESS TO JUSTICE (Mar. 31, 2017), https://law-tech-a2j.org/advice/goodbye-rechtwijzer-hello-justice42/.

[129] JUSTICE42, https://justice42.com/?lang=en (last visited Feb. 5, 2022).

[130] *Id.*

[131] Roger Smith, *The Rechtwijzer Rises from the Ashes: An Interview with Laura Kistemaker of Justice42*, LAW, TECH. AND ACCESS TO JUSTICE (Feb. 9, 2020), https://law-tech-a2j.org/odr/the-rechtwijzer-rises-from-the-ashes-an-interview-WITH-laura-kistemaker-of-justice42/. Users in the Netherlands can find the new system at Uitelkaar.nl.

[132] *Id.*

[133] *Id.*

institutions to which the community entrusted adjudication and legal aid did not have the processes for implementing and scaling up innovation.[134]

### *C. Domestic Abuse—Triaging*

Domestic abuse victims are likely to have few resources and little opportunity to obtain the services of a lawyer, even though they are in great need of legal assistance. [135] Thus, there is a need for triaging in intelligent ODR. Our survey of current ODR offerings did not identify any ODR systems with triaging features to meet this need. Accordingly, this section discusses why triaging is essential to developing an intelligent ODR system that can truly meet the needs of all SRLs.

Whilst technology can be very useful in supporting victims of domestic and family violence ("DFV"), it can also act as a weapon against people experiencing DFV. Over the past few years, there has been increasing research related to the use of technology by DFV perpetrators to amplify abuse against victims or survivors.[136] Sadly, a study in the United States found that perpetrators can easily utilize apps and spyware systems on mobile phones to stalk and monitor their victims, crippling their victims' capability to seek help without having their movements monitored.[137] The existence of DFV in a dispute is an indicator that there is a great risk to the parties in the dispute—an issue that any ODR system dealing with DFV must take into account.

Some DFV apps can be used as part of a triaging system to ensure timely action to protect victims. But most importantly, ODR systems should have the capacity to incorporate triaging to determine which problems require urgent action. For example, systems should build in "tripwires" based on answers to questions or evidence gathered through GPS (e.g., stalking) to dispatch assistance.

Triaging is also required in other legal domains. Examples might include when urgent action is required in the case of child abduction, or with regard to the granting of bail. It is important for triaging to be available to initiate and expedite action in high-risk cases, leading to a reduced risk to the community. The significance of timely, relevant advice is vital.

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[134] Mauritis Barendrecht, *Rechtwijzer: Why Online Supported Dispute Resolution is Hard to Implement,* THE HAGUE INST. FOR INNOVATION OF LAW (Jun. 17, 2021), https://www.hiil.org/news/rechtwijzer-why-online-supported-dispute-resolution-is-hard-to-implement/.

[135] Branting, *supra* note 82 at 139–146.

[136] Delanie Woodlock et al., *Technology as a Weapon in Domestic Violence: Responding to Digital Coercive Control*, AUSTL. SOC. WORK 368, 368–380 (2019).

[137] Brenda Baddam, *Technology and its Danger to Domestic Violence Victims: How Did He Find Me?*, 28 ALB. L.J. SCI & TECH. 73, 82 (2017). Through the use of technology, ex-partners are also able to overcome geographical boundaries, allowing them to perpetrate abuse after separation, particularly where there are children involved. Katrina Markwick, et al., *Technology and Family Violence in the Context of Post-separated Parenting*, 40 AUSTL. AND N.Z. J. OF FAM. THERAPY 143, 149 (2019).

### *D. CoParenter*

CoParenter is an online service that was privately created, but is now often ordered by courts to assist separating partners with communicating more effectively and making better decisions for their children.[138] It is a mission-driven social venture based in Los Angeles, California and led by those previously involved in parenting disputes—parents, family court judges, social workers, etc.[139] CoParenter's broad-based service helps separated, divorced, and never-married parents make and manage co-parenting responsibilities, create court-ready parenting and holiday plans, resolve disputes, and make more informed, child-centric decisions that save them time and money and keep them out of court.[140] Integrated ODR facilitates online negotiation and mediation and adds means for collaboration among various parties over a long period of time. This can be very helpful for the families involved, as well as the professionals who serve these families.

As an early, middle, and late-stage intervention tool, CoParenter grants users access to on-demand mediators who help them better understand their dispute and coach them towards binding, child-centric decisions. The platform allows co-parents to communicate, track schedules, and manage responsibilities.[141] The platform also helps co-parents keep accurate records of communications and activities (requests, pickups, drop-offs, expenses, etc.) tracked through the app.[142] All records are available to either the co-parent or to a third-party judge, virtually eliminating the fights about who said what in litigation.[143]

The app can be used on any iOS or Android mobile phone, or can be accessed through a personal computer.[144] Much of the app centers on communication through secure and time-stamped messaging; records of child exchanges; on-demand mediation to make decisions about cost splitting; and a synced calendar.[145] CoParenter also advertises two uses of AI for parents: creating parenting plans and using IDR technology to predict and prevent common conflicts when parents are communicating with one another. For example, the app uses various technologies to help parents as they propose, respond to, and memorialize agreements.[146] Another AI feature built into the system tells parents if a message they are about to send sounds hostile and it

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[138] COPARENTER, https://coparenter.com (last visited Feb. 25, 2022).

[139] *Id.*

[140] *Id.*

[141] *Features: Organize & Connect*, COPARENTER, https://coparenter.com/features/organize-and-connect/ (last visited Feb. 3, 2022).

[142] *See id.*

[143] *Features: Records & Evidence*, COPARENTER, https://coparenter.com/features/records-and-evidence/ (last visited Feb. 3, 2022).

[144] *FAQ: What is coParenter?*, COPARENTER, https://coparenter.com/blog/faq-what-is-coparenter/ (last visited Nov. 12, 2021).

[145] *Organize & Connect*, COPARENTER, https://coparenter.com/features/organize-and-connect/ (last visited July 17, 2021).

[146] *Plan & Agree*, COPARENTER, https://coparenter.com/features/plan-and-agree/ (last visited July 17, 2021).

gives them the option to revise the message.[147]At the same time, the use and extent of "real" AI is unclear. CoParenter appears to be more of a "rule-based" system set up to take parents step-by-step through the process of creating a plan, asking them yes or no questions about what they want to do next, their children's names, and other relevant information.[148]

### *E. Split Up*

The Split Up digital service is a university-created system for assisting separating and divorcing partners to reach agreements on division of their assets.[149] The program was first developed in Australia in 1995.[150] It is not an app and is not currently offered online.[151] The service itself is a predictive algorithm that can be used to determine a party's BATNA while going into a negotiation.[152] The system used 103 commonplace (or unreported) family court cases to develop predictive analytics for how future assets would be divided between couples in the event of a divorce.[153] Couples input shared costs, performed labor, division of household duties, future job prospects, and more.[154]

The system was constructed in conjunction with lawyers at Victoria Legal Aid. It was a hybrid of neural networks and rules. The neural networks were used to understand those matters that were deemed discretionary.[155] Discretion can here be defined as "a power or right conferred upon decision-makers to act according to the dictates of their own judgement and conscience, uncontrolled by the judgement or conscience of others."[156]

The study of neural networks is a major research topic in the machine learning discipline of AI. A neural network receives its name from the fact that it resembles a nervous system in the brain. It consists of many self-adjusting processing elements cooperating in a densely interconnected network. Each processing element generates a single output signal which is transmitted to the other processing elements. The output signal of a processing element depends on the inputs to the processing element: each input is given a weighting factor that determines the amount of influence that the input will have on the output.

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[147] *Mediation/Coaching*, COPARENTER, https://coparenter.com/features/mediation-coaching/ (last visited Nov. 12, 2021).

[148] *Id.*

[149] *See* Stranieri et al., *supra* note 72, at 153–183. See John Zeleznikow, *Computer Divorce*, YOUTUBE (Apr. 26, 2020), https://www.youtube.com/watch?v=u7A3H4lUjzM for a useful video about the operation of the Split Up system.

[150] Stranieri et al., *supra* note 72.

[151] *Id.*

[152] John Zeleznikow & Emilia Bellucci, *Family-Winner: Integrating Game Theory and Heuristics to Provide Negotiation Support*, PROC. OF THE 16TH INT'L CONF. ON L. KNOWLEDGE BASED SYSTEMS 21, 23 (2003).

[153] *Id.*

[154] For a video about the operation of the Split Up system, *see* Zeleznikow, *supra* note 149.

[155] See Ruth Kannai, Uri Schild & John Zeleznikow, *Modeling the Evolution of Legal Discretion: An Artificial Intelligence Approach*, 20.4 RATIO JURIS. 530 (2007) for a discussion of which AI tools to use when building legal knowledge-based systems in discretionary domains.

[156] Stranieri & Zeleznikow, *supra* note 71.

The strength of the weighting factors is adjusted autonomously by the processing element as data is processed. Neural networks are particularly useful in law because they can deal with a) classification difficulties, b) vague terms, c) defeasible rules, and d) discretionary domains.[157] One difficulty with the use of neural networks in law is that they do not provide explanations of their reasoning. The weights learned in the networks are not reported. In creating the Split Up system, the theory of British philosopher Steven Toulmin[158] was used to provide explanations to the users of the system. The task of an overall distribution of the couple's property was modelled using 94 Toulmin Arguments.

Despite using machine learning, the development of Split Up involved a substantial amount of human input. Family Law experts at Victoria Legal Aid indicated how each of the 94 Toulmin Arguments were related.[159] Twenty-five years later, the theoretical principles behind AI software have not changed. But computer software and hardware are much less expensive, and data can be much more easily stored. Portable and the Legal Services Commission of South Australia designed and developed Amica,[160] a digital solution for Australian separating couples. Amica includes a machine learning algorithm that suggests division of former couples' total marital assets. Professor Zeleznikow was a consultant to the development of the Amica system, which emulates the Split Up system, especially in the way it integrates rule-based reasoning and machine learning to advise upon the distribution of assets following divorce in Australia. Rechtwijzer was also based upon the Split Up system.[161]

### *F. Our Family Wizard*

Our Family Wizard is a service designed to support both parents and professionals advising parents in co-parenting situations.[162] It offers tools to parents for scheduling, tracking, reimbursement requests and payments, communication, and creating logs of the communication.[163] Like CoParenter, Our Family Wizard emphasizes effective communication. This platform also allows parents to create third-party accounts for others they want to be able to join in, such as their therapists.[164] In particular, parents can use Our Family Wizard to create a shared calendar, securely message on the app, check-in at various locations, and easily share payment obligations.[165] For practitioners, the

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[157] *Id.* at 275.

[158] Stephen E. Toulmin, THE USES OF ARGUMENT (Cambridge University Press, 1st ed. 1958).

[159] Stranieri et al., *supra* note 72.

[160] AMICA, https://www.amica.gov.au/ (last visited Jul. 20, 2020).

[161] Zeleznikow, *supra* note 25, at 802.

[162] OUR FAMILY WIZARD, https://www.ourfamilywizard.com/ (last visited July 17, 2021).

[163] *Id.*

[164] *Third-Party Accounts*, OUR FAMILY WIZARD, https://www.ourfamilywizard.com/third-party-accounts (last visited Nov. 12, 2021).

[165] *For Families: Product Features*, OUR FAMILY WIZARD, https://www.ourfamilywizard.com/product-features (last visited July 17, 2021).

app offers case management, the ability to view client activity, and access to easily downloadable client records.[166]

Although Our Family Wizard is not run by the courts, many courts in the United States and Canada have ordered its use during custody disputes.[167] Our Family Wizard offers an AI feature called ToneMeter™, which operates similarly to CoParenter's messaging technology.[168] The AI identifies and flags "emotionally charged phrases" that people might want to reconsider before sending.[169] The technology gauges language against "eight levels of connotative feeling."[170] Interestingly, ToneMeter™ is an optional add-on to Our Family Wizard and is not automatically included in the service.[171]

As Roberge and Fraser note, features in family ODR platforms can be relevant for commercial disputes.[172] They also identify major challenges in effective and consistent dispute resolution for cross-border e-commerce, including social and cultural restraints, insufficient knowledge of options available to resolve disputes, time or financial constraints, and lack of confidence in providers.[173] While text-based negotiations have some benefits, especially since younger people are more comfortable communicating via text,[174] they tend to frequently involve hard-ball tactics and hostile behavior.[175] Technology that flags hostile tones could be helpful in overcoming cross-cultural communication issues as well as facilitating a generally friendly atmosphere in commercial as well as family disputes.

### *G. Cyberjustice Laboratory*

The Cyberjustice Laboratory in Montreal, Canada, has been active in creating pilot ODR projects to advance access to justice. For example, it created the open-source applications which were foundational for the CAT-ODR system to resolve condominium disputes in Ontario, Canada.[176] The CAT-ODR program uses a stepped process in which users first create an account and move through a negotiation phase where both parties can settle their dispute by posting proposals to one another to help negotiate a solution. The aim is for most disputes to end amicably through this initial negotiation process. This is especially important with respect to condominium disputes, as the disputing owners are generally neighbors who must live together. Nonetheless, if the

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[166] *For Practitioners: Product Features*, OUR FAMILY WIZARD, https://www.ourfamilywizard.com/practitioners/product-features (last visited July 17, 2021).

[167] *Professionals*, OUR FAMILY WIZARD, https://www.ourfamilywizard.com/professionals (last visited July 17, 2021).

[168] *Messages*, OUR FAMILY WIZARD, https://www.ourfamilywizard.com/product-features/messages (last visited July 17, 2021).

[169] *Id.*

[170] *Id.*

[171] *Id.*

[172] Roberge & Fraser, *supra* note 56, at 5.

[173] *Id.* at 9.

[174] *Id.* at 40.

[175] *Id.* at 39.

[176] *CAT*, LABORATORIES DE CYBERJUSTICE, https://www.cyberjustice.ca/en/parle-3/nos-etudes-de -cas/tasc (last visited Dec. 2, 2018).

parties are unable to negotiate a settlement at this point, they may then ask for an online hearing "in front of" a tribunal member tasked with rendering a decision through the platform. This decision-making phase allows the tribunal member to manage the schedule, obtain documents, and hear witness testimony electronically.[177]

This CAT-ODR program is similar to Platform to Aid in the Resolution of Litigation (PARLe), a platform which the Cyberjustice Laboratory created as a pilot project with the Consumer Protection Agency in Quebec.[178] PARLe offers negotiation, mediation, and adjudicative tools designed to help parties end a conflict before litigation.[179] Consumers with a grievance can contact an agent, answer a series of questions to determine if they are well-suited, and, if the answer is yes, obtain information for creating a file.[180] To begin the negotiation stage, the complainant fills out forms describing the cause of the dispute and asking for a settlement proposal.[181] They can then upload documentary evidence, and parties can negotiate asynchronously until they reach a settlement or require a mediator.[182] The mediation phase begins after a certain amount of time or a certain number of counter-offers.[183] The mediator can access the documents, previous forms, and a discussion forum.[184] If mediation does not resolve the dispute, the consumer can take his or her case to the relevant court or tribunal, although usually disputes do not reach this stage.[185]

PARLe is considering some use of AI, with a keen eye toward protecting fundamental justice principles. Its creators recognize that any reliance on data and predictive analytics in dispute resolution is not generally neutral.[186] Reliance on data analytics is value-laden and not entirely objective in practice. For instance, an algorithm driving blind bidding that aims to predict the zone of potential agreement in any given case is created by individuals based on certain assumptions about the cases analyzed and data selected and structured for analysis. The data could be skewed for a host of reasons, and therefore any ODR system must be careful when using data analytics as a truly predictive or decision-making tool.

Instead, data analytics and machine learning may be more helpful in natural language processing as part of an ODR intake process.[187] For example, the Cyberjustice Laboratory is planning to launch a computer software tool called

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[177] *Id.*

[178] Karim Benyekhlef & Nicolas Vermeys, *Ontario's First Online Tribunal*, SLAW (Dec. 18, 2017), http://www.slaw.ca/2017/12/18/ontarios-first-online-tribunal/.

[179] Nicolas Vermeys & Maria-Fernanda Acevedo, *Online Dispute Resolution Platforms as a Public Service: How the Cyberjustice Laboratory's Platform to Aid in the Resolution of Litigation Electronically (PARLe) is Transforming the Canadian Justice System*, 1 SORBONNE L. REV. 219, 233 (2019).

[180] *Id.* at 225.

[181] *Id.*

[182] *Id.* at 226.

[183] *Id.*

[184] *Id.*

[185] *Id.* at 227.

[186] *Id.* at 234.

[187] *Id.* at 235, 239.

JusticeBot.[188] The purpose of the bot is to simplify access to legal information for the public, in line with the idea that machine learning should be used for information access rather than outcome prediction. In practice, JusticeBot functions by asking users a series of questions about their legal issues; the algorithm then analyzes the answers and gives information by comparing their situation to previous legal cases.[189] In contrast to a service like MyOpenCourt, JusticeBot does not seek to answer a legal question with a percentage of certainty.[190] The purpose is to give the user more information, which they can use to make decisions about how to settle or proceed with a case.[191]

In addition to PARLe, Cyberjustice Laboratory offers other public software for ODR, although JusticeBot seems to be the only AI system it is currently implementing.[192] ISA is software that allows users to control technology for the courtroom and for presentation of evidence. Stakeholders can access an interface that lets them control the camera, microphone, display, and annotation from their own devices.[193] Its Case Management System allows parties to e-file documents, create files, create hearing plans, manage the hearing itself, and consolidate files.[194] The Virtual Court platform, currently being developed through the Canada Foundation for Innovation, is a highly modular software that users will be able to use to conduct the major essential functions of a criminal, civil, or administrative justice proceeding.[195] The platform will offer a wide range of services, from managing files, forms, documents, and calendars to sending mail, authorizing users, and managing witnesses.[196] The modular format of the software leaves room to add additional technology and features.

Cyberjustice Laboratory leaders have nonetheless conceptualized what they call online dispute resolution aided by artificial intelligence ("ODRAI").[197] They have argued that AI should be used not to predict results, but to identify useful data that could help in the ODR process.[198] They have advanced ideas to make PARLe even more accessible for SRLs, including the use of AI to provide individuals with data to make more informed decisions.[199] In this realm, the

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[188] *JusticeBot: Using Artificial Intelligence to Increase Access to Justice*, CYBERJUSTICE LABORATORY, https://www.cyberjustice.ca/en/projets/justicebot/ (last visited July 19, 2021).

[189] *Id.*

[190] *Our Tools*, MYOPENCOURT, https://tool.myopencourt.org/?_ga=2.32965245.254646809.1626544850-1822029854.1626544850 (last visited July 17, 2021).

[191] *JusticeBot*, *supra* note 188.

[192] *Nos logiciels*, CYBERJUSTICE LABORATORY, https://www.cyberjustice.ca/en/logiciels-cyberjustice/nos-logiciels/ (last visited July 19, 2021).

[193] *ISA*, CYBERJUSTICE LABORATORY, https://www.cyberjustice.ca/en/logiciels-cyberjustice/nos-solutions-logicielles/isa/ (last visited July 19, 2021).

[194] *Case Management System*, CYBERJUSTICE LABORATORY, https://www.cyberjustice.ca/en/logiciels-cyberjustice/nos-solutions-logicielles/greffe/ (last visited July 19, 2021).

[195] *Virtual Court Platform*, CYBERJUSTICE LABORATORY, https://www.cyberjustice.ca/en/logiciels-cyberjustice/nos-solutions-logicielles/le-tribunal-virtuel/ (last visited July 19, 2021).

[196] *Id.*

[197] Vermeys & Acevedo, *supra* note 179, at 245.

[198] *Id.* at 246.

[199] *Id.* at 247.

Cyberjustice Laboratory is behind the Autonomy Through Cyberjustice Technologies ("ACT") project, which is a research partnership that aims to explore AI for the improvement of conflict prevention and resolution.[200] The ACT researchers are currently researching how to leverage AI and plan to conduct a series of pilot projects around the use of ODRAI.[201] Project partners include groups from social and community action, the professional world, academia, and companies that develop technology for the justice sector, including Microsoft, Reuters, and Linux.[202] The project recognizes the promises and pitfalls of technology and aims to develop a legal governance framework for AI.[203]

Additionally, the Cyberjustice Laboratory provides resources from around the world. For instance, the Cyberjustice Laboratory sponsors blog posts that examine the use of AI – one such post looks at New Zealand's adoption of a Charter of Algorithms.[204] The Laboratory has also put out several working papers focusing on the implementation of AI and blockchain technology.[205]

### *H. Conflicts Analytics Laboratory*

Conflicts Analytics Laboratory is a research-based consortium at Queen's University Schools of Law & Business in Kingston, Ontario, Canada.[206] The Laboratory's goals include how to apply data science and machine learning to dispute resolution.[207] The Laboratory defines "conflict analytics" as "the process of extracting actionable knowledge from negotiation, mediation, and settlement agreements."[208] Its aims include the development of analytics for reaching settlement agreements in various cases, including personal injury and trademark cases.[209] In the early 1980s, the Rand Corporation used artificial intelligence to develop two settlement-oriented decision support systems. They provided advice about risk assessment in damages claims. Lift Dispatching

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[200] "This project brings together a multidisciplinary and international team of 52 researchers and 45 partners representing a number of stakeholders including the world's leading research centres dedicated to the implementation and use of technologies in the field of justice (cyberjustice), litigants and legal professionals (justice stakeholders), as well as main users and developers of AI for justice in Canada." Presentation, ACT PROJECT, https://ajcact.openum.ca/en/ajc/presentation/ (last visited Oct. 23, 2021).

[201] Vermeys & Acevedo, *supra* note 179, at 247.

[202] *Partners*, AJC, https://www.ajcact.org/partenaires/ (last visited July 19, 2021).

[203] *Presentation*, AJC, https://www.ajcact.org/ajc/presentation/ (last visited July 19, 2021).

[204] *New Zealand Adopts a Charter of Algorithms*, CYBERJUSTICE LABORATORY, https://www.cyberjustice.ca/en/2020/08/10/la-nouvelle-zelande-se-dote-dune-charte-des-algorithmes/ (last visited July 19, 2021).

[205] *Publications*, CYBERJUSTICE LABORATORY, https://www.cyberjustice.ca/en/publications/ (last visited July 19, 2021).

[206] CONFLICT ANALYTICS, https://conflictanalytics.queenslaw.ca/ (last visited July 17, 2021).

[207] *Id.*

[208] *Id.*

[209] *Our Work*, CONFLICT ANALYTICS, https://conflictanalytics.queenslaw.ca/research (last visited July 17, 2021).

System ("LDS") supported professionals in settling product liability cases,[210] whilst System for Asbestos Litigation ("SAL") helped insurance claims adjusters evaluate claims related to asbestos exposure.[211]

In May 2020, the Laboratory also launched a suite of open-access AI tools called MyOpenCourt.[212] The AI tools consist of predictive analytics targeted towards worker claims over termination compensation. In particular, the tools help assess whether a worker is an employee or independent contractor, connect people with pro bono attorneys, and help determine whether a layoff is illegal.[213] The Laboratory also offers a new tool called the Vaccine Mediator, which collects data about the side effects of COVID-19 vaccines in order to develop tools for resolving vaccine injury claims.[214] These free tools use mainly rule-based processes, walking users through multiple-choice questions.[215] The tools then use data to provide predictions on likely results, whilst providing a disclaimer that the results are 85% accurate based on relevant Canadian case law.[216] Some tools are quite basic; the layoff tool assesses if a worker is entitled to termination compensation based on their answer.[217]

The services that MyOpenCourt offers are notable in light of Roberge's and Fraser's observation in 2019 that they were unable to find any ODR provider that "uses AI advanced technologies for the purpose of providing legal information to the public, except for some which provide search engines."[218] The MyOpenCourt tools go beyond simply providing pamphlets or documents. The tools provide predictive answers based on a questionnaire that users complete. The tools consider relevant case law. Their use of predictive analytics may to some degree replicate or enhance the role of an attorney. Of course, much depends on the accuracy of the data inputs and data structures, but the Conflicts Analytics Laboratory's creative consideration of data analytics to assist individuals' decision-making shows promise for further development of tools to assist SRLs in particular, especially in narrow areas with sufficiently clear law.

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[210] Donald A. Waterman & Mark A. Peterson, Models of Legal Decisionmaking: Research Design and Methods (Rand Corporation 1981).

[211] Donald A. Waterman, Jody Paul & Mark Peterson, *Expert Systems for Legal Decision Making*, EXPERT SYSTEMS 212, 226 (1986).

[212] *Id.*

[213] *Id.*

[214] *Our Tools*, MYOPENCOURT, https://tool.myopencourt.org/?_ga=2.32965245.254646809.1626544850-1822029854.1626544850 (last visited July 17, 2021).

[215] *Employee or Contractor Classification Tool*, MYOPENCOURT, https://tool.myopencourt.org/employee-or-contractor/worker (last visited July 17, 2021). For instance, the Employee or Contractor Classification tool asks questions about work duties and responsibilities, as well as questions about the user's age and location.

[216] *Id.*

[217] *Layoff Tool*, MYOPENCOURT, https://tool.myopencourt.org/layoff (last visited July 17, 2021).

[218] Roberge & Fraser, *supra* note 56, at 15.

### *I. Family Winner and SmartSettle—the use of Game Theory*

Family Winner[219] is a family law support system that uses a variety of AI and game theory techniques [220] developed by John Nash[221] to help structure the mediation process and give parties an idea of possible trade-offs.[222] The system can also be used in other types of disputes to calculate results strongly resembling eventual outcomes.[223]

Family Winner requires users to input what issues are in dispute, how important each issue is, and how the issues relate to one another.[224] The system then creates graphical trade-off maps and assigns values to each issue.[225] Parties can then settle based on how the map presents the issues and their values, and resulting allocations.[226] If the parties do not agree with the proposed allocations, the system asks the parties to break down the issues further in order to identify the least contentious issues until they find sub-issues on which the parties can agree.[227] Then, the system mathematically calculates which issue to give to each party, in order to maximize value and satisfaction to clients.[228] This system seeks to allow parties to achieve a greater percentage of what they value than traditional methods. Nonetheless, researchers found the approach worked better for material possessions than for issues relating to children's needs.[229]

The algorithms used in Family Winner are similar to those used in Ernie Thiessen's SmartSettle system.[230] SmartSettle attempts to maximize results and subvert traditional negotiations by using a blind bidding model.[231] There are various SmartSettle products, based on the complexity of the dispute and the needs of the user. SmartSettle One involves two parties and one numerical issue, such as a simple dispute over money.[232] Parties can chat with a mediator

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[219] See John Zeleznikow, *Family Winner*, YOUTUBE (Oct. 1, 2010), https://youtu.be/YOZczuvrou4 for a useful video illustrating the system. *See also* Bellucci & Zeleznikow, *supra* note 86.

[220] "Game theory is a branch of applied mathematics that provides advice about the optimal distribution of resources. In the case of a negotiation, the goal of game theory is to develop the best outcome related to the choices each person has made." Arno R. Lodder & John Zeleznikow, ENHANCED DISPUTE RESOLUTION THROUGH THE USE OF INFORMATION TECHNOLOGY (Cambridge Univ. Press, 2010).

[221] John Nash, *Two-Person Cooperative Game*s, 21 ECONOMETRICA: J. ECONOMETRIC SOC. 128, 128–40 (1953).

[222] Zeleznikow & Bellucci, *supra* note 152, at 22.

[223] *Id.*

[224] *Id.* At 25.

[225] *Id.*

[226] *Id.*

[227] *Id.*

[228] *Id.*

[229] *Id.* At 29.

[230] Ernest Marvin Thiessen, ICANS: An Interactive Computer-Assisted Multiparty Negotiation Support System (1993) (dissertation, Cornell University).

[231] Peter Holt, et al., *Brexit 2.0 Negotiation Simulation with Smartsettle Infinity*, 4 IJODR 66, 66 (2017).

[232] *Smartsettle ONE*, SMARTSETTLE, https://www.smartsettle.com/smartsettle-one (last visited July 17, 2021).

privately or all together.[233] In the framing phase, parties identify which issues they value and establish a negotiating range.[234] Instead of negotiating directly, parties use the app to make both visible bids and secret bids on different numbers.[235] They bid in rounds, allowing the algorithm to help parties ultimately develop a zone of possible agreement, where their bidding spreads overlap.[236] If there is an overlap in the final bids (for instance, the defendant offers a larger settlement than the claimant would settle for), the system chooses a number in the middle for the settlement range, or zone of possible agreement, rewarding the party who made bigger strides slightly more to close the gap early in negotiation.[237] If there is a small gap in the final bids, the software will split the difference.[238] If there is a larger gap, the Expert Neutral Deal-closer ("END") algorithm will come in to find a fair solution.[239]

This technology uses five key algorithms. One is a Single Negotiating Framework, which establishes working relationships.[240] The Visual Blind Bidding algorithm saves time, and Reward Early Effort algorithm motivates collaboration.[241] The Automatic Deal Closer avoids small gap impasse, and the END guarantees a collaborative outcome.[242] Other SmartSettle products use similar algorithms and technology tools but are tailored to sophisticated negotiations. Parties can use these products to reach resolutions based on analysis of potential negotiation outcomes and more.[243] Roberge and Fraser note both SmartSettle and Family Winner as tools that can be used to create more predictability in outcomes for disputes, including cases in the commercial realm.[244]

### *J. Agreement Technologies*

Agreement Technologies are computer systems in which autonomous software agents negotiate with one another with the aim of reaching mutually acceptable agreements.[245] These technologies may be open distributed systems, where interactions between computational agents are based on the concept of *agreement.* Usually, these technologies rely on specific rules, using the rule-based system approach noted earlier in Part II. They also provide for an

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[233] eNegotiations by Smartsettle, *Insurance Claims w Smartsettle ONE*, YOUTUBE (Apr. 23, 2019), https://youtu.be/EdfAt75lOl4.

[234] *Id.*

[235] *Id.*

[236] *Id.*

[237] *Id.*

[238] *Id.*

[239] *Id.*

[240] *Id.*

[241] *Id.*

[242] *Id.*

[243] *Smartsettle Products*, SMARTSETTLE, https://www.smartsettle.com/products (last visited July 17, 2021).

[244] Roberge & Fraser, *supra* note 56, at 37. The point allocation system used by Family Winner can be an effective tool to support mediators in their role of assisting parties to allocate values to issues and showing them potential trade-offs; its potential applicability goes beyond use by the parties themselves. *Id*.

[245] Sascha Ossowski et al., AGREEMENT TECHNOLOGIES 9 (Sascha Ossowski ed. 2013).

interaction mechanism that allows for agreements to be established and executed.[246] Agreement technologies are continually being developed, accelerating during the COVID-19 pandemic as parties look for ways to conclude deals from a distance.[247] These technologies also help companies save money. The 2020 RELX Emerging Executive Report surveyed 1,000 senior executives and found 68% had increased their investment in AI technologies, including agreement technologies that cut contracting costs.[248]

Although document assembly programs have been used since the 1990s,[249] AI-assisted agreement technologies are relatively new.[250] They do more than provide a way to sign documents (e.g. DocuSign). More sophisticated agreement technologies may use AI to pre-populate documents and provide standardized contracts based on party needs. The software can review parties' previous documents and learn to identify essential aspects in light of data observed. AI can also be used to flag potentially problematic terms, recognizing changes that should be made based on context.[251] This sort of AI-powered contract drafting can be applied in multiple scenarios and help users gain clarity because the system looks at the document as a single entity rather than providing a detailed review of different parts.[252] This type of enhanced review can prevent contract disputes and lead to greater party satisfaction.[253] The following are some examples of agreement technologies.

### 1. Lawyaw—Drag and Drop

Lawyaw has been noted as a useful technology tool for drafting documents.[254] Lawyaw allows users to drag a customized word document into

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[246] *Id.*

[247] Raja, *The Top Players in the AI-Powered Contract Management Space*, CENZA (Nov. 26, 2020), https://www.cenza.co/the-top-players-in-the-ai-powered-contract-management-space/.

[248] *Id.*; *see also* Daniel Faggella, *AI in Law and Legal Practice – A Comprehensive View of 35 Current Applications*, EMERJ (Sept. 7, 2021).

[249] Rachel Vanni, *How AI Accelerates the Legal Contract Drafting Process*, KIRA (May 27, 2020), https://kirasystems.com/learn/how-ai-accelerates-the-legal-contract-drafting-process/; s*ee also* Carlos Chesnevar, *Special Issue on Agreement Technologies*, RESEARCH GATE (JULY 10, 2015), https://www.researchgate.net/publication/283778127_Special_issue_on_agreement_technologies.

[250] Vanni, *supra* note 249; *see also* Ellen Gregg et al., *How Artificial Intelligence is Impacting Litigators*, WOMBLE BOND DICKINSON (2019), https://www.womblebonddickinson.com/sites/default/files/2019-07/AI_Journal_Article_Summer_2019.pdf; *see also* Raghav Bharadwaj, *Document Search and Data Mining in Banking – Natural Language Processing Capabilities*, EMERJ (APR. 17, 2019), https://emerj.com/ai-sector-overviews/document-search-and-data-mining-in-banking-natural-language-processing-capabilities/.

[251] Vanni, *supra* note 249.

[252] *Id.*

[253] *Id.*

[254] Fitz Tepper, *Lawyaw Uses AI to Help Lawyers Draft Documents Faster*, TECHCRUNCH+ (Mar. 28, 2018), https://techcrunch.com/2018/03/23/lawyaw-uses-ai-to-help-lawyers-draft-documents-faster/?guccounter=1&guce_referrer=aHR0cHM6Ly93d3cuZ29vZ2xlLmNvbS8&guce_referr

its platform, automatically uses natural language processing to figure out what sections need to be replaced, then fills in those sections with the correct personalized phrases and variables.[255] If a variable isn't automatically detected, Lawyaw lets users manually select it, and the system remembers it for future uses.[256]

### 2. Onit and Litera—Questions and Answers

Onit advertises itself as an enterprise workflow automation and AI solution.[257] In December 2020, Onit went further into legal tech by acquiring AXDraft, a document automation company based in Ukraine.[258] Prior to this acquisition, Onit acquired legal AI company McCarthyFinch and launched Precedent and ReviewAI.[259] AXDraft has a proprietary algorithm that allows for live document drafting based on a question-and-answer process in multiple languages.[260] The algorithm allows a document of any complexity to be transformed into a question-and-answer process while also offering live document previews and data integrations.[261]

Litera is also expanding into agreement technologies through the strategic acquisition of companies like Bestpractix.[262] The latter is an AI-powered contract drafting platform that uses proprietary natural language processing and machine learning to transform unstructured data into actionable documents.[263] Furthermore, this technology boasts the ability to provide drafting recommendations based on analysis of prior negotiated agreements.[264] Notably, still other legal tech companies use question-and-answer processes to create specific types of documents, such as nondisclosure agreements.[265]

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[255] *Id.*

[256] *Id.*

[257] *Onit Acquires AXDRAFT, Expanding its Contract Lifecycle Management Offerings with Robust Document Automation*, K1CAPITAL (Dec. 17, 2020), https://k1capital.com/onit-acquires-axdraft-expanding-its-contract-lifecycle-management-offerings-with-robust-document-automation/.

[258] *Id.*

[259] *Id.*

[260] *Id.*

[261] *Id.*

[262] *Litera Acquires Bestpractix in Move That Will Empower Lawyers to Draft Smarter*, LITERA (JUNE 16, 2020), https://www.litera.com/about-us/press-releases/litera-acquires-bestpractix-in-move-that-will-empower-lawyers-to-draft-smarter/.

[263] *Id.*

[264] *Id.*

[265] Faggella, *supra* note 248. *See also LegalMation Liberating Lawyers*, LEGALMATION, https://www.legalmation.com.

### 3. LinkSquares—Sophisticated Clause Templates

LinkSquares boasts the use of machine learning and AI to draft documents.[266] However, it is built on an extensive library of contract clauses that can be customized for various contexts.[267] This library builds a repository of standard contract clauses from the user's existing documents—including documents you may have used in the past or gathered from third-party contracts. The system then assists in using the library to draft contracts from these clauses.[268]

## IV. DEVELOPING USER-CENTRIC ODR INCORPORATING AI

### *A. The Six Modules for Intelligent ODR*

The emergence of COVID-19 in early 2020 has accelerated interest in ODR systems.[269] With citizens in most communities forced into isolation, disputants no longer met face-to-face. Nevertheless, justice systems must function in these circumstances—especially for the issues of bail, domestic conflict, family violence, consumer claims, etc. Disputes did not disappear during the COVID-19 pandemic and courts and others are increasingly looking to ODR, including virtual mediation and adjudication. Indeed, Zoom-operated processes have become commonplace in most U.S. jurisdictions.

Still, intelligent legal technologies within ODR systems have remained fairly limited. Contemporary ODR systems primarily offer case management and online communications, with the emergence of very limited AI or data analytics as outlined above.[270] Unfortunately, legal systems are fairly staid and slow to adopt change. Indeed, the Zoom processes that have become popular in the pandemic largely replicate in-person mediation, arbitration, and trial. This Article urges consideration of ways to use legal technologies to not only expand A2J, but to reimagine judicial and non-judicial problem-solving.

As noted at the outset, there are a growing number of SRLs in need of assistance in navigating the road to remedies. Individual disputants can suffer if they do not have the support of professional advice. Professional advice informs disputants of their BATNAs, supports "Bargaining in the Shadow of the Law," and helps litigants focus upon interest-based solutions. Furthermore, any intelligent ODR system needs to incorporate sophisticated communication tools, case management, decision support, means for triaging, and more.[271] All told, human-centric ODR design provides exciting opportunities for interventions on behalf of SRLs.

Accordingly, this Article has examined how ODR systems should be developed to support A2J, especially for SRLs. This goes beyond simply

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[266] *AI + CLM = Ultimate Tool for Legal Teams*, LINKSQUARES, https://linksquares.com/product-overview/ (last visited Nov. 19, 2021).

[267] *Id.*

[268] *Id.*

[269] *See* Sourdin & Zeleznikow, *supra* note 54, at 151.

[270] TANIA SOURDIN, ET AL., TECHNOLOGY AND JUSTICE: JUSTICE APPS (1st ed. 2020).

[271] Mareike Schoop, *Support of Complex Electronic Negotiations*, 4 HANDBOOK OF GROUP DECISION AND NEGOTIATION 409, 409–424 (D.M.Kilgour & Colin Eden eds., 2010).

videoconferencing or building on advisory systems such as the CRT, noted above.[272] The Article also examined other ODR tools that incorporate data analytics, algorithms, or AI. Our examination leads us to believe that a truly helpful and holistic ODR program aimed to assist SRLs and others should have the capacity to provide the following tools —as part of a modular system. It is modular in that all of the following tools, or modules, are not necessary for every case. Instead, parties may pick and choose what modules are most helpful for solving their legal problems. The six modules, building on prior research noting these as "facilities,"[273] are as follows:

**1. Case Management**: the ODR system should organize the claims by allowing users to initiate the dispute and manage it along the way through a secure platform. Currently, courts may allow e-filing, but often they still collect information manually. Users should be able to initiate the conflict, continuously access the data, and be aware of timelines they need to meet, what documents are required at specific times, and the progress of the case. Furthermore, case management systems should allow for text and calendar updates that populate through users' mobile devices.

**2. Triaging**: As is clear from our discussion of family violence issues above, an ODR system should indicate which cases require urgent action and which cases provide fewer risks to litigants. Most users suffer from delay in any case, but delay can be particularly dangerous where safety and/or health is at stake. Sadly, based on our analysis very few current ODR systems have triaging capabilities. Triaging may also help direct users to the appropriate forum for their dispute. Thus, the ODR system should suggest immediate interventions where necessary and otherwise direct parties where their cases should be addressed or heard. Triaging is especially vital in cases of bail applications, child abduction, and domestic violence.

**3. Advisory Tools**: The ODR system should also provide processes for reality testing, and helping users assess the strength of their cases. This could include "pushed" articles in topic, BATNA advisory systems (which would inform litigants of the likely outcome of the dispute), calculators (such as those to advise upon tax and child support obligations), copies of legislation, and reports of relevant cases. Law firms are increasingly using data analytics and advisory tools empowered by technology. There is therefore no reason why SRLs should not have access to such tools, especially when they do not have the luxury of live legal support. Indeed, SRLs need these tools most.[274] Examples already exist: the Split Up system,[275] Rechtwijzer,[276] and the British Columbia Civil Resolution Tribunal (CRT)[277]—all noted above. The provision of such advice needs to be the subject of much future research.

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[272] Salter & Thompson, *supra* note 46, at 113.

[273] Zeleznikow, *supra* note 25 (introducing the six-module system to support Intelligent Online Dispute Resolution). While this previous work introduced the six modules discussed here, it made no mention of how the system could operate in the justice system and support SRLs.

[274] *Id*. at 18.

[275] Stranieri et al., *supra* note 72.

[276] Smith, *supra* note 45.

[277] Salter & Thompson, *supra* note 46, at 113.

**4. Communication Tools**: All current ODR systems provide communication tools to support some combination of arbitration, conciliation, facilitation, mediation, and negotiation. This may include videoconferencing through platforms such as Zoom and TEAMS. However, it also should include secure portals for direct text-based communication as well as virtual spaces for shuttle mediation, where the mediator can easily separate the parties into different "virtual rooms" and quickly enter/leave rooms to confer with the parties separately. This can be very effective where toxic relationships make it difficult for parties to reach agreement while in the same room, even if it is virtual.[278] Notably, this Article is nonetheless unique in pushing beyond communication tools to suggest inclusion of additional modules. Again, online communication is only one piece of the ODR puzzle, as noted herein.

**5. Decision Support Tools**: If the disputants still cannot resolve their conflict after receiving advice from advisory systems and substantial communications between the parties, then systems should incorporate computer programs that utilize AI or algorithms building on game theory to facilitate trade-offs.[279] Examples of systems that provide such support are AdjustedWinner,[280] Family Winner,[281] and Smartsettle.[282] These Decision Support Tools go beyond advisory tools, noted above, to use analytics to facilitate direct trade-offs leading to a quick settlement. SRLs usually have limited experience and scarce skills in conducting negotiations, leading them to greatly benefit from these tools. Nonetheless, as Cyberjustice Laboratory work noted above has emphasized, predictive analytics should be used cautiously, controlled by auditing and transparency rules as well as means for ensuring reliance on accurate and non-discriminatory data. Properly developed and monitored decision support tools have the capacity to assist disputants during a mediation or negotiation but are not appropriate for all cases. Moreover, they should be used in conjunction with advisory tools so that users are empowered with maximum and balanced information.

**6. Drafting Software or Agreement Technologies**: Once the parties to a dispute reach an in-principal settlement, it is important to provide computer software that assists in drafting acceptable agreements. Thomson's research with Relationships Australia Queensland found that telephonic family mediations had an 80% success rate, but when practitioners sent the disputants a parenting plan arising from the discussions, many parents eschewed the agreement and claimed that they had not settled on the plan that was circulated.[283] Of course, consent is crucial, and parties should never be forced

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[278] Mark Thomson, *Alternative Modes of Delivery for Family Dispute Resolution: The Telephone Dispute Resolution Service and the Online FDR Project*, 17.3 J. FAM. STUD. 253–57 (2011).

[279] Arno R. Lodder & John Zeleznikow, *Developing an Online Dispute Resolution Environment: Dialogue Tools and Negotiation Support Systems in a Three-Step Model*, 10 HARV. NEGOT. L. REV. 287, 288–89 (2005).

[280] STEVEN J. BRAMS & ALAN D. TAYLOR, FAIR DIVISION: FROM CAKE-CUTTING TO DISPUTE RESOLUTION SETTLE (Cambridge Univ. Press 1996).

[281] Bellucci & Zeleznikow, *supra* note 86.

[282] Ernest M. Thiessen & Joseph P. McMahon, Jr., *Beyond Win-Win in Cyberspace*, 15 OHIO ST. J. ON DISP. RESOL. 643, 643 (1999).

[283] *Id.*

into a settlement. However, having technologies available to memorialize agreements in real time, generally saves everyone from the time and stress of later memorializing an agreement reached in prior communications. Indeed, it is problematic when parties back away from a concluded agreement under a guise of falsely claimed lack of memory. Thus, ODR systems should incorporate what we previously called agreement technologies. Preparing agreements (such as parenting plans) that are acceptable to all parties is a complex task that is especially problematic for parties without expert (human or digital) support.

### *B. Conceptualizing the Modules in a Holistic Approach*

Again, the tools noted in A above have been discussed elsewhere, but not in the way this Article proposes. This Article goes further to explain how the tools can be part of a modular system for SRLs. Specifically, we propose the development of free or low-cost access to these six modules with the understanding that not all individuals or cases need all six modules. The aspiration is that individuals, especially those who cannot afford access to attorneys, will have these modules available so that they can "mix and match" to pave the way for access to justice in their given situations.

This is unique and novel because we also argue that the modules need not flow in a linear fashion. The list above does not dictate an order for using the modules. Of course, some modules in the system seem to be reasonably fixed in terms of the order. For example, the first step involves case management for initiating an action or claim, which may be essential in many cases. The next step, in many cases, may then be triaging to determine how quickly state actors must get involved in order to protect the parties. This is particularly vital where parties could face perils, as we see in domestic violence cases. Triaging may not be important, however, in a consumer case that parties can quickly resolve with communication. The final step, only occurring once resolution has been achieved, is usually drafting an appropriate agreement, referred to as module six above—but may be unnecessary where the consumer simply wants their money back and the result is achieved without need to draft a settlement.

There may be some variation and optionality in the order and use of advisory tools, communication tools and decision support tools (noted as modules three, four and five above). In most cases, advisory tools would follow triaging. Here, disputants can test their assumptions about their cases and gather information to help them determine their best course of action. This may include reality testing through tools such as guided pathways, BATNA advisory systems, and related videos. This process usually occurs before communications take place, but such support can be provided at any stage during the negotiation or mediation. Choice is important to allow parties to use any of the tools in any order and iteratively until either they reach a resolution or there is a stalemate.

Such "mixing and matching" has already gained traction in ADR as parties have learned the benefits of not only "med-arb" (attempting mediation before moving to a final decision through arbitration), but also "arb-med" (submitting a claim to a binding forum but remaining open to mediation at any point in the process – often quite useful where parties learn through beginning stages of arbitration that they may fare better by reaching a mutual settlement through

mediation). As noted above, "modules" are very apropos, as very few disputes will require the use of all six processes—so one must pick and choose what fits the dispute at hand. Modules can fit together like Lego blocks for their issue. Still, the availability of all of these various tools would be ideal.

Moreover, this Article hopes to shed light on what is missing from the current ODR offerings, especially for SRLs. Most ODR systems include module four (communications), and most systems now include module one (case management). We acknowledge that there are alternative ODR systems that use other steps in this model, but none uses all modules. For example, Adieu Technologies supports triaging (process two), [284] offers family law advice (process three), and assists with drafting plans (process six);[285] Split Up advises about BATNAs;[286] Smartsettle provides decision support to assist negotiation (process five);[287] and all agreement technologies support drafting plans (process six). These pieces may be helpful, but how is anyone to know up-front what legal tech companies actually provide and what is missing? In a perfect system where all six modules are available, SRLs would have "one-stop-shopping." This would give any litigant access to the modules that they need. Even though the start-up costs may be high to develop the technologies, this could result in overall cost savings—court time, legal aid, loss of remedies, to name just a few.

Note also that this Article is not suggesting "robo-arbitrators" or AI-powered determinations. While AI may eventually provide important benefits for arbitration, concerns remain regarding the fairness of eliminating the "human touch" in establishing final and binding determinations on legal issues.[288] Furthermore, the development of intelligent and consensual ODR systems that provide access to all six modules would be very significant for SRLs. Still, we do not mean to suggest that there should be two classes of justice: in person and online. That should never be the case and in-person A2J is essential. Nonetheless, we can envision a landscape in which SRLs have access to various components that would fit together to create intelligent ODR systems without requiring any one entity to shoulder all the costs. We discuss this further in Part IV. D.

### *C. Noting Capacities of Current ODR Systems*

Part I provided background material on ODR and how legal technologies such as ODR can be helpful for SRLs. Part II built on this background to discuss the various legal technologies and ODR tools that go beyond merely providing means for communicating to use AI, data analytics or algorithms. Taking this landscape of technologies into account, Part IV began with a presentation of the six-modules – noting different functionalities that would be helpful for SRLs. These modules should be available to improve A2J. With this foundation, we

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[284] Zeleznikow, *supra* note 87, at 20.

[285] *Press Button. Disclosure Appears. Automatically.*, ADIEU: ELEGANT PARTING, https://www.adieu.ai/ (last visited July 27, 2021).

[286] Stranieri et al., *supra* note 72, at 153.

[287] *About Us*, SMARTSETTLE, https://www.smartsettle.com/about-us (last visited July 27, 2021).

[288] Derick H. Lindquist & Ylli Dauta, *AI in International Arbitration: Need for the Human Touch*, 2021 J. DISP. RESOL. (2021).

examined ODR providers and legal tech tools that may be available to see which of the six modules are readily available in specific ODR systems.

The US National Center for Technology and Dispute Resolution ("NCTDR") provides an important starting point, as it maintains a list of self-reported ODR providers.[289] Working from this list, we sought to investigate the ODR providers mainly operating in the United States, Canada, and Australia. We also added the agreement technologies noted above and deleted some on the NCTDR list that do not appear to be ODR providers or are no longer in business. The final list includes fifty-nine providers. Our findings are reported in Appendix A of this Article. Of course, this is a continually changing landscape, and the chart is therefore ever-changing. Additionally, we realize that there may be errors, as we could not determine full capacities in some cases where a paid subscription would be required to verify certain details.[290]

Still, charting ODR technologies and dissecting what they do based on the six-modules above is instructional. It identifies saturation as well as areas where growth is necessary in order to expand offerings that empower individuals in obtaining remedies and resolving disputes. As hypothesized, Appendix A indicates that case management and communication tools are especially prevalent. Table 1 below presents a summary of the capacities currently offered by the fifty-nine providers analyzed.[291] Table 2 provides a summary of the ADR and ODR processes that the fifty-nine providers analyzed provide. As that table suggests, most ODR providers focus on mediation, followed by arbitration.

**Table 1. Summary of capacities currently offered by the fifty-nine providers analyzed**

| Typography | Number of entities |
|---|---|
| Case Management | 44 |
| Triaging | 4 |
| Advisory Tools | 17 |
| Communication Tools | 55 |
| Decision Support Tools | 9 |
| Drafting/Agreement Technologies | 5 |

**Table 2. Summary of the ADR and ODR processes provided by the fifty-nine providers**

| Process[292] | Number of entities |
|---|---|

[289] *Provider List*, NCTDR, http://odr.info/provider-list/ (last visited July 29, 2021).

[290] Professor Schmitz built on prior research with Janet Martinez, and thanks her research assistants noted in the first footnote for their essential assistance in this endeavor. Schmitz and Martinez, *supra* note 29.

[291] All capacities are noted for each provider, so one provider may have more than one capacity. None of the providers offered all six capacities in the above typography.

[292] Again, some providers offered more than one process. Also, some offered none of these processes so the delineations are not exclusive.

| | |
|---|---|
| Negotiation/settlement conference | 20 |
| Mediation | 38 |
| Arbitration | 21 |

We are not including Zoom as an ODR provider. Zoom is merely a communication tool that could be part of an ODR program, but its main purpose is not dispute prevention or resolution. Still, Zoom may be a component within some of the entities studied. For example, the American Arbitration Association, included in the analysis, provides ODR by using Zoom in its mediations and arbitrations. Again, these processes mainly involve communication and case management, which ties in with the findings regarding the typography above.

This analysis of providers also highlights the focus on these communication-oriented processes, confirming expectations that communication tools are most prevalent, followed by case management. Triaging, decision support and agreement technologies were most rare. This is important in that SRLs need triaging, decision support and assistance in drafting final agreements—even more so than represented parties. SRLs thrown into mediation, arbitration or litigation without this support are at a distinct disadvantage. Indeed, more all-inclusive ODR systems should provide these capacities, along with the other modules we have parsed out in this Article.

### *D. Where We Go from Here in Filling Gaps to Advance Access to Justice*

Ideas of "justice" and A2J raise varied considerations for the legal profession. Rebecca Sandefur raises poignant questions in her article "Access to What?," noting that not all problems are legal and the meaning of "justice" depends on how one frames the problem to be solved.[293] She notes:

> When the relevant substantive and procedural norms govern resolution, that resolution is lawful and we have access to justice, whether or not lawyers are involved in the resolution and whether or not the problem comes into contact with any kind of dispute-resolving forum. Access to justice is a good in itself. Its effects powerfully reach into people's lives.[294]

As Professor Sandefur highlights, however, we have a crisis in terms of restricted access to that "good." Moreover, systematic inequality deprives individuals from access to problem-solving and remedies, be it financial or legal (or social, for that matter).[295] Accordingly, developing legal tech, in particular ODR, that is aimed to expand A2J, is especially essential for SRLs who already stand at a distinct disadvantage in comparison to those who are represented by legal counsel.

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[293] Rebecca L. Sandefur, *Access to What?*, 148 DÆDALUS 49, 51 (2019), https://www.researchgate.net/publication/330077674_Access_to_What.

[294] *Id.*

[295] *Id.*

Our above analysis suggests that there is room for growth in the legal tech industry that contributes toward ODR.[296] There has not been enough attention paid to dispute system design, especially where the stakeholders do not have the incentive and power to provide the best system to address concerns with A2J. Additionally, system design must be user-centric, and provide access to remedies for SRLs.[297] With this in mind, policymakers and providers should work together to make all six modules available even if users need not use all six in any given case. Furthermore, one company need not shoulder the burden of providing all six modules. As we see with APIs throughout the tech industry, there is no reason why various providers cannot collaborate and work out arrangements for various technologies to work together—again in a modular system.

ODR is a game-changer for many and has the capacity and power to create connections despite forced physical disconnection. Furthermore, resources are flowing to support ODR in the wake of COVID-19, and institutions are busy articulating standards. Nonetheless, it remains essential that core ethical principles and sound dispute system design remain foundational. For example, researchers need to track how technology "judges" our behavior.[298] Technology is the "4th party" in ODR[299] and its design can have important repercussions for parties involved, be it intentional or not.[300] For example, the CRT, noted above, uses nudges such as repeated notices that may impact users' behavior.[301] This is valuable when everyone benefits, but policies should be in place for system audits to shine light on discriminatory outcomes resulting from digital nudges or poorly constructed technologies.

We also should not ignore the human element and must ensure that incorporation of data analytics is not harming SRLs who lack human professional assistance.[302] As another example, the JusticeBot noted above also includes nudges, and therefore creates risks that SRLs will be nudged in negative directions. Again, system audits and continual research is necessary to mitigate such risks.[303]

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[296] Janet Martinez, *International Dispute System Design: Shoals and Shifting Goals*, J. DISP. RESOL. 343, 343–45 (2020).

[297] While beyond the scope of this Article, it is worth noting the significant efforts of federal administrative agencies to use AI for improved governance in terms of their data management, adjudication, enforcement and accountability functions. *See* David F.Engstrom & Daniel E. Ho, *Algorithmic Accountability in the Administrative State*, 37 YALE J. REG. 800, 800–54 (2020); *see also* DAVID FREEMAN ENGSTROM ET AL., GOVERNMENT BY ALGORITHM: ARTIFICIAL INTELLIGENCE IN FEDERAL ADMINISTRATIVE AGENCIES (Report Submitted to the Administrative Conference of the United States, Feb. 2020).

[298] *See* Richard H. Thaler & Cass R. Sunstein, NUDGE: IMPROVING DECISIONS ABOUT HEALTH, WEALTH AND HAPPINESS 6 (Penguin Books 2008).

[299] Lodder & Zeleznikow, *supra* note 220, at 77.

[300] Ilona Bois-Drivet & Sylvain Longhais, *Evaluating the Impact of the Use of Nudges in Legal Decision Support Online Tools and ODR Platforms*, Cyberjustice Laboratory, May 26, 2021, at 4.

[301] *Id.*

[302] *Id.* at 5–7.

[303] *Id.* at 8.

Additionally, the National Center for State Courts in the U.S. has created a framework for evaluating the effectiveness of new court ODR programs to encourage audits and monitoring of established ODR programs.[304] While this Article encourages development of new ODR and legal tech tools to fill gaps, we also note that ongoing research is vital to ensure that the tools created are ethical and effective. Indeed, new technologies enter the market every day. Many are well-meaning, but others are focused on merely generating revenue or promoting government austerity. We hope to encourage technologies that increase A2J while decreasing costs.[305] Nonetheless, it is essential to evaluate their effectiveness and make ongoing adjustments as needed.[306]

Research must include survey and focus group data on user outcomes and satisfaction.[307] It also should consider access, equity, and market effects, ODR participation rates, and ODR usage in underserved populations.[308] Efficiency in case processing is measured by time to disposition and hearings to disposition.[309] Sustainability is measured by looking to program costs and judgment finality.[310] This evaluation framework is designed to lay out a balanced, feasible evaluation plan that can be applied by any court or private entity developing a new ODR program.[311]

Furthermore, any use of AI must proceed with caution and awareness of related bias and explainability issues.[312] Automated decision-making may advance efficiency, but it also can negatively impact fairness and due process.[313] Algorithms create "black box"[314] concerns where there is a lack of transparency and humans are unable to easily explain outcomes.[315] It therefore remains important for system audits to be commonplace, and for individuals to have a choice-- which is why this Article does not suggest that AI produce "bot resolutions." Again, the six-modules above do not include AI-empowered arbitration awards.

Furthermore, any use of AI must be accompanied by an auditable trail so that lawmakers and citizens can follow the trail of reasoning that guides an

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[304] Andrea L. Miller et. al., *An Evaluation and Performance Measurement Framework for Online Dispute Resolution Programs: Assessing Improvements in Access to Justice*, NATIONAL CENTRE FOR STATE COURTS, (May 2021), https://www.ncsc.org/__data/assets/pdf_file/0022/65641/ODR-Evaluation-Performance-Measure-Framework.pdf.

[305] *Id.*

[306] *Id.* at 9.

[307] *Id.* at 13.

[308] *Id.* at 14.

[309] *Id.* at 15.

[310] *Id.*

[311] *Id.* at 16.

[312] Paul J. Baillargeon, *Asymmetrical Governance: Auditing Algorithms to Preserve Due Process Rights*, UNIVERSITY OF WINDSOR (June 1, 2021), https://scholar.uwindsor.ca/cgi/viewcontent.cgi?article=1201&context=major-papers.

[313] *Id.* at iv.

[314] "The concept of the black box is essentially a catch-all term for the things that cannot be fully understood; this term has become often used when referring to the inner workings of algorithms," *Id.* at 2.

[315] *Id.* at 2–3.

algorithm to reach its conclusion.[316] For example, risk assessments in bail hearings have shown how algorithms can produce biased results, which highlights the need for audits.[317] It is essential to remain vigilant and to edit and audit data used for such systems, as well as the code behind any machine learning.[318] Of course, it is difficult to convince private legal tech providers that they should submit to audits.[319] Still, there may be means for gathering necessary information via Freedom of Information Act requests.[320] Furthermore, making AI technically transparent enhances public trust in AI and improves how these tools work.[321] While some companies hire ethics officers and implement new guidelines, others argue such efforts are just for show.[322] Still, it seems that AI and data analytics used to empower SRLs should be explainable and accountable to gain traction—and incentives are in place for companies and policymakers to collaborate for the common good.

## V. CONCLUSION

This Article sets forth background on key legal technologies used in dispute prevention and resolution, often referred to as ODR. Furthermore, it considers particular ODR technologies that go beyond the facilitation of communication to use data analytics and/or algorithms to empower SRLs and explains why such use of technology can expand A2J. Building on this background, the Article proposes that six processes should be made available to truly capitalize on innovation that advances user-centric system design—namely, case management, triaging, advisory, communication, decision support, and drafting tools.

At the same time, this Article provided an analysis of fifty-nine current ODR systems, revealing gaps in current ODR provider offerings. Indeed, this unique analysis shows that there is room for further development of triaging, advisory, decision support, and drafting tools. However, such development must abide by ethical guidelines, including vigilance regarding the use of AI and algorithms to ensure that SRLs are not left with "second class" justice. Moreover, optionality and choice remain core to any further development of intelligent ODR systems. Indeed, it is time to reimagine A2J through the innovative use of technology, not simply to advance efficiency and corporate savings, but to empower SRLs in an often one-sided legal market.

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[316] *Id.* at 21.

[317] *Id.* at 22, 26–27.

[318] *Id.* at 37–39.

[319] Hannah Bloch-Wehba, *Transparency's AI Problem,* KNIGHT FIRST AMEND. INST. COLUM. U. (June 17, 2021), https://knightcolumbia.org/content/transparencys-ai-problem.

[320] *Id.*

[321] *Id.*

[322] *Id.* at 10.

## APPENDIX. ODR PROVIDER FUNCTIONALITIES 2022♦

| Provider | Subject Matter | Function | ADR or ODR | Case Management | Rules for Access | Rules, Standards, or Qualification for Neutrals | User-Centric ODR[323] | Secure Portal | Web Address |
|---|---|---|---|---|---|---|---|---|---|
| **American Arbitration Association** | Commercial<br>Construction<br>Employment<br>International<br>Labor<br>Government<br>Consumer | Arbitration<br>Mediation<br>Settlement conferences | ADR and limited ODR | Yes | Yes | Panels are vetted and must adhere to AAA and ABA Code of Ethics | 1, 4 | Secure (https) | https://www.adr.org |
| **An Olive Branch** | Commercial<br>Employment | Mediation<br>Negotiation | ODR and ADR | No | No | No specific requirements stated | 4 | Unsecure (http) | http://www.anolivebranch.com/what-we-do |
| **Anywhere Arbitration** | Small Claims<br>Commercial | Arbitration | ODR | Yes | Yes: must follow IBA guidelines | Arbitrators must have an appropriate Masters, PhD, or JD and training in arbitration or legal work | 1, 4 | Unsecure (http) | http://www.anywherearbitration.com/about-us.html |
| **Arbitrate Online** | Commercial | Arbitration on documents | | | | | 1, 4 | Unsecure | http://www.arbitrate.online |
| **Arbitration Resolution Services, INC.** | Commercial<br>Consumer<br>Civil | Arbitration<br>Mediation | ODR | Yes | Yes | No specific requirements stated, Mediators and Arbitrators have an average of 15 years in the field. | 1, 4 | Secure (https) | https://www.arbresolutions.com |

♦ Information in this appendix reflects ODR offerings as of February 2022.

[323] *See supra* Section IV.A. for the six user-centric modules referenced here.

| Provider | Subject Matter | Function | ADR or ODR | Case Management | Rules for Access | Rules, Standards, or Qualification for Neutrals | User-Centric ODR[323] | Secure Portal | Web Address |
|---|---|---|---|---|---|---|---|---|---|
| **Better Business Bureau** | Consumer | Arbitration<br>Mediation | Mainly ADR, with some telephonic hearings | Yes, especially with autoline | Yes: limited basic rules | No specific requirements stated | 1, 4 | Secure (https) | https://www.bbb.org/bbb-dispute-handling-and-resolution/dispute-resolution-rules-and-brochures/dispute-resolution-processes-and-guides/ |
| **Caseload Manager** | Cloud-based system for case management | Mediation | Neither | Yes | No | No specific requirements stated | 1 | Secure (https) | https://www.caseloadmanager.com |
| **CEDR, based in UK** | Consumer<br>Commercial | Mediation | ADR and ODR | Yes | Offers Training for Mediators, and some basic rules and practices | No specific requirements stated, but offers training for mediators | 1, 4 | Secure (https) | https://www.cedr.com |
| **Chartered Institute of Arbitrators, based in the UK** | Commercial<br>Civil | Arbitration | ADR: Promotes ADR and training for Arbitrators as well as research in ADR | Yes | Yes | No specific standards beyond education | 1, 4 | Secure (https) | https://www.ciarb.org |
| **Client Dispute Manager** | Requires login to access site so we had limited access | | Neither | Yes | | N/A | 1, 4 | Secure (https) | https://www.clientdisputemanager.com/Account/Login |
| **Community Legal Aide SoCal ODR** | Small claims | Negotiation<br>Mediation | ODR | Basic FAQs | No | Mediators are provided by Waymakers. (Note this is a free service) | 1 (can get a facilitator on request), 3, 4 | Secure (https) | https://odr.legal-aid.com |

| Provider | Subject Matter | Function | ADR or ODR | Case Management | Rules for Access | Rules, Standards, or Qualification for Neutrals | User-Centric ODR[323] | Secure Portal | Web Address |
|---|---|---|---|---|---|---|---|---|---|
| **Conflict Team** | Financial claims | Negotiation<br>Algorithm to identify potential settlement | | Yes | | | 1, 4, 5 | Secure (https) | https://conflicteam.com/ |
| **CoParenter** | Divorce | Mediation | ODR | No | No | No specific requirements stated | 2, 3, 4, 5, 6 | Secure (https) | https://coparenter.com |
| **CREK, based in India** | Any conflict | Negotiation<br>Mediation<br>Adjudication | ODR | Yes | No | No specific requirements stated | 1, 4 | Secure (https) | https://crekodr.com |
| **Crowd Justice Now** | Small claims (Under development) | (Under development) | | | | | 4 | Secure (https) | https://www.crowdjusticenow.org |
| **Cyber Settle** | Small Claims<br>Insurance claims<br>Commercial | Negotiation | ODR | Yes | Algorithmic rules seem prevalent | No specific requirements stated | 1, 4, 5 | Unsecure (http) | http://www.cybersettle.com |
| **Divorceify** | Divorce | Provides resources, professional contacts, action plans, and more | Neither, as they focus on tools for divorce generally | No | No | No specific requirements stated | 2, 3, 4 | Secure (https) | https://divorceify.com/home |
| **Dtour.life** | Divorce | Platform for managing divorce | Neither, as they focus on tools for divorce generally | No | No | No specific requirements stated | 1, 4, 6 | Secure (https) | https://www.dtour.life |
| **Ejudicate** | Civil<br>Consumer | Arbitration | ODR<br>ADR | Yes | No | Requirements derived from small claims court qualifications from California; will open up based on personal interview | 1, 4 | Secure (https) | https://www.ejudicate.com/ |
| **Endispute JAMS Online Mediation** | Small claims | Arbitration<br>Mediation | ODR | Yes | Yes | Mediators and Arbitrators are all judges or attorneys | 1, 4 | Secure (https) | https://www.jamsadr.com/endispute/ |

| Provider | Subject Matter | Function | ADR or ODR | Case Management | Rules for Access | Rules, Standards, or Qualification for Neutrals | User-Centric ODR[323] | Secure Portal | Web Address |
|---|---|---|---|---|---|---|---|---|---|
| **Facilicase** | (this looks like a case management cloud based system for mediation) | Mediation | Neither | Yes | N/A | N/A | 1, 4 | Unsecure (http) | http://facilicase.com |
| **Fair Claims** | Commercial<br>Small Claims | Arbitration<br>Negotiation | ODR | Yes | Yes | No specific requirements stated, but Arbitrators are carefully vetted - they only accept 7% of applicants, all experienced attorneys. | 1, 4, possibly 5 and 6 | Secure (https) | https://www.fairclaims.com |
| **Fair Proposals** | Money Claims | Negotiation with algorithm/software | | | | | 3, 4, 5 | Secure (https) | https://www.fairproposals.com/ |
| **Financial Industry Regulatory Authority** | Small Claims | Arbitration<br>Mediation | ADR, mainly arbitration | Yes | Yes: provides User Guide | No specific requirements stated | 1, 4 | Secure (https) | https://www.finra.org/arbitration-mediation/online-claim-filing |
| **InstantMediations** | General Claims | Mediation | ODR | | | | 1, 3, 4 | Secure (https) | https://instantmediations.com/ |
| **International Centre for Dispute Resolution** | Commercial | Arbitration<br>Negotiation<br>Mediation | ADR | Yes | Yes | No specific requirements stated, but Arbitrators and Mediators are required to follow stringent standards of ethics set by ICDR | 1, 4 | Secure (https) | https://www.icdr.org/msodr |
| **International Chamber of Commerce** | Commercial | Arbitration<br>Mediation | ADR and ODR | Yes | No | No specific requirements stated | 1, 3, 4 | Secure (https) | https://iccwbo.org/dispute-resolution-services/ |

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|---|---|---|---|---|---|---|---|---|---|
| **International Consumer Protection and Enforcement Network** | Consumer | Mainly complaints reporting | complaint portal | No | No | No specific requirements stated | 4 | Secure (https) | https://www.econsumer.gov/en/FileAComplaint#crnt |
| **International Corporation for Assigned Names and Numbers (ICANN)** | Domain Name Disputes<br><br>Trademark Infringement | Arbitration | ODR | Yes | Yes | No specific requirements stated | 1, 4 | Secure (https) | https://www.icann.org/resources/pages/dispute-resolution-2012-02-25-en |
| **International Institute for Conflict Prevention & Resolution** | Commercial, Civil | Arbitration<br>Mediation | ADR and ODR | Yes (on request) | Yes | No specific requirements stated | 1, 3, 4 | Secure (https) | https://www.cpradr.org |
| **Its Over Easy** | Divorce | Mediation | ODR | No | No | No specific requirements stated | 4 | Secure (https) | https://www.itsovereasy.com |
| **Kleros** | Air transport<br>Car insurance | Crowd sourced jurors | ODR | Yes | Yes | Yes: for jurors | 1, 4, 5 | Secure (https) | https://kleros.io |
| **Legaler** | Cloud storage<br><br>Meeting website | Negotiation<br>Mediation | ODR | Yes | No | N/A | 1, 4 | Secure (https) | https://legaler.com |
| **Matterhorn** | Civil<br>Family<br>Traffic<br>Warrants & pleas | Arbitration<br>Mediation | ODR | Yes | No | No specific requirements stated, but system works through Court staff, police agencies, etc. | 1, 3, 4 | Secure (https) | https://getmatterhorn.com |
| **Mediate2Go** | Cloud-based case management | Mediation | Neither | Yes | No | No specific requirements stated | 1, 3, 4 | Secure (https) | https://mediate2go.com |
| **Mediation Suites** | General civil<br><br>Family | Mediation | ODR | | | Yes | 4 | Secure (https) | |
| **Modria** | Debt<br>Landlord<br>Small claims<br>Family law | Negotiation<br>Mediation | ODR | Yes | No | No specific requirements stated, but complies with CJIS, GDPR, SOC, PCI | 1, 2, 4 | Secure (https) | https://www.tylertech.com/products/modria |

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| **Modron Spaces** | Case management<br>Meeting service | Mediation<br>Arbitration<br>Negotiation | ODR | Yes | No | N/A | 1, 4, 6 | Secure (https) | https://www.modron.com/spaces |
| **National Arbitration Forum** | Commercial<br>Employment<br>IO<br>Internet domains disputes | Arbitration<br>Mediation | ADR and ODR | Yes | Yes | No specific requirements stated, but provides code of Ethical Conduct for Arbitrators | 1, 4 | Secure (https) | https://www.adrforum.com |
| **NetNeutrals** | Consumer<br>Ebay feedback and review disputes | Negotiation<br>Mediation | ODR | Yes | Yes | No specific requirements stated, but neutrals are defined as "trained" | 1, 4 | Secure (https) | https://netneutrals.com |
| **Next Level Mediation** | General Claims | Mediation | ODR | Yes | Yes | | 1, 2, 3, 4, 5 | Secure (https) | https://nextlevelmediation.com |
| **Pacific Conflict Intervention** | Landlord<br>Real estate<br>Commercial | Mediation | ADR | No | No | Seems to be one man's website for ADR services | 3, 4 | Unsecure (http) | http://www.pacific-ci.com |
| **Online Arbitrators** | Seems to just be a directory to find an online service | Arbitration | Neither | No | No | No specific requirements stated | None | Secure (https) | https://www.onlinearbitrators.com/index.cfm |
| **Online Mediators** | Seems to just be a directory to find an online service | Mediators | Neither | No | No | No specific requirements stated | None | Secure (https) | https://www.onlinemediators.com/index.cfm |
| **OurFamilyWizard** | Family Law | Mediation and Communication Service | ODR | Yes | No | No specific requirements stated | 1, 3, 4, possibly 5 | Secure (https) | https://www.ourfamilywizard.com |
| **Pactum** | Commercial | Negotiation/AI | | | | | 3, 4, 5 | Secure (https) | https://pactum.com |
| **People Claim** | Small Claims<br>Consumer<br>Civil | Mediation | ODR | Yes | No | No specific requirements stated | 1, 4 | Secure (https) | https://www.peopleclaim.com |

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|---|---|---|---|---|---|---|---|---|---|
| **Picture It Settled** | Small claims<br>Civil | Negotiation<br>Mediation | ODR | No | No | Predictive analytics software | 3 | Unsecure (http) | http://www.pictureitsettled.com |
| **Rapid Rulings** | General Claims | Arbitration | ODR | Yes | Yes | Yes | 1, 4 | Secure (https) | https://www.rapidrulings.com |
| **Resolve Disputes Online** | Civil | Seems to be primarily a Case Management Site, but it does have a settlement and judgement builder feature that allows for settlement offers or posted determinations | ODR | Yes | No | No specific requirements stated | 1, 3, 4, possibly 5 and some 6 | Secure (https) | https://resolvedisputes.online/index.html#features |
| **Smart Settle** | Small Claims<br>Family Law<br>Water<br>Negotiations | Negotiation | ODR | Yes | No | No specific requirements stated, but offers training for mediators | 1, 4, 5, 6 | Secure (https) | https://smartsettle.com |
| **Settlement IQ** | Small claims<br>Debt recovery<br>Commercial | Negotiation<br>Mediation | ODR | Yes | No | No specific requirements stated | 1, 4, 6 | Secure (https) | https://www.settlementiq.com |
| **Settle Today** | Commercial | Negotiation<br>Mediation | ODR | Yes | No | No specific requirements stated, but Neutrals are attorneys or certified facilitators | 1, 4 | Secure (https) | https://settletoday.com |
| **Spliddit** | Product and service disputes | Algorithmic Fair Evaluation | ODR | | Yes | | 4, 5 | Unsecure (http) | http://www.spliddit.org |

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|---|---|---|---|---|---|---|---|---|---|
| **TurboCourt** | Family<br>Child support<br>Probate<br>Small claims<br>Civil | Negotiation<br>Mediation | ODR<br>ADR | Yes | Provides Training videos for users but no stated standards | No specific requirements stated | 1, 3, 4 | Unsecure (http) | http://info.turbocourt.com |
| **Trokt** | Contracts<br>Civil | Negotiation,<br>Mediation,<br>Arbitration | Mainly ODR | Yes | No | No specific requirements stated | 1, 4 | Secure (https) | https://www.trokt.org |
| **TrustArc** | Privacy disputes related to the trustee program | Mediation | ODR | Yes | Yes | No specific requirements stated | 1, 3, 4 | Secure (https) | https://www.trustarc.com/consumer-resources/ |
| **Wevorce** | Divorce | Mediation | ODR | Yes | No | Certified mediators (not specified) | 1, 4 | Secure (https) | https://www.wevorce.com |
| **World Intellectual Property Organization** | Mainly domain name disputes and UDRP | Arbitration<br>Mediation | ADR and ODR | Yes | Yes | WIPO considers hiring neutrals based on the following factors: legal or technical qualifications, professional experiences, publications, and professional memberships | 1, 4 | Secure (https) | https://www.wipo.int/amc/en/index.html |