



# Case study: the use of AI in ODR

Information gathering for assisting the Commission in complying with its obligation under Article 26 (“reporting”) of the ADR Directive and Article 21 (“reporting”) of the ODR Regulation

Annex I

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# 1. AI in ODR

## 1.1. Introduction

**This case study focuses on the use of Artificial Intelligence (AI) in online dispute resolution (ODR),** drawing on examples from the EU Member States, third countries, and big online marketplaces.<sup>1</sup> Where relevant, the use of broader digital technologies is also considered.

The **aims of this case study** are to:

- identify uses of digital technologies in ADR and their functions;
- identify uses of AI in ODR, including opportunities that AI technologies offer for ODR, and examples of AI use in ODR in the European Union, third countries, and big online marketplaces;
- identify advantages and disadvantages of the application of AI technologies in this field;
- identify implications for the future use of AI in ODR in the European Union, and how the Commission can support new developments, also with regards to the EU ODR platform.

### Box 1: Definitions of AI and ODR

**We understand AI as an umbrella term for applications in which machines are able to perform human-like abilities such as learning, judgement and problem-solving.** Specific applications of AI include expert systems, natural language processing, speech recognition and machine vision.<sup>2</sup> However, there is no single correct definition of AI, as each has theoretical and practical implications, so is not wrong.<sup>3</sup>

For ODR, we follow the definition proposed by Rabinovich-Einy and Katsh<sup>4</sup>, and **understand ODR in two ways:**

- **tools**, as in technological solutions that can be used to resolve both online and offline disputes; ODR in this sense is understood as a digital “support system” for mediators and arbitrators addressing individual disputes;
- **systems**, as in ODR tools that are used in a coordinated way, within a closed setting by a limited (but potentially very large) number of users who are engaged in ongoing interactions with other users, and may experience similar types of problems over time.

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<sup>1</sup> The original approach was to focus on the use of AI in ODR in three case study countries: Germany, Italy and the Netherlands. However, upon conducting in-depth interviews with representatives of EU trade organisations, legal tech practitioners, ODR contact points and ADR authorities in the above mentioned countries, and two experts who focus in their work specifically on technological developments in the context of ODR, we decided to amend the approach, as we found that AI use in ODR was still rare. So instead of taking a country-focussed approach, we focus on examples of AI use in ODR across the EU and third countries, as well as on big online market places.

<sup>2</sup> J Rajendra and A Thuraisingam (2022) The deployment of artificial intelligence in alternative dispute resolution: the AI augmented arbitrator, Information and Communications Technology Law, Volume 31, Issue 2: <https://www.tandfonline.com/doi/abs/10.1080/13600834.2021.1998955>

<sup>3</sup> P Wang (2019) On defining Artificial Intelligence, Journal of Artificial General Intelligence 10(2) [https://www.researchgate.net/publication/335279198\\_On\\_Defining\\_Artificial\\_Intelligence](https://www.researchgate.net/publication/335279198_On_Defining_Artificial_Intelligence)

<sup>4</sup> [https://www.mediate.com/pdf/rabinovitch\\_katsh.pdf](https://www.mediate.com/pdf/rabinovitch_katsh.pdf)

## 1.2. Uses of digital technologies in ADR

In recent decades, digital technology has re-shaped alternative dispute resolution (ADR) into online dispute resolution (ODR). This was mainly done in two ways, either by **using technology to support or enable existing manual processes** of administering dispute resolution, and / or by **using technology to fundamentally re-engineer the dispute resolution process** and delivering resolution in new ways. Furthermore, ODR can be employed to **support third parties playing a neutral role** to manage the process more effectively, or it can **replace the third party altogether**, such as in online negotiation tools, where technology-mediated processes help parties to frame and resolve their disputes.

Academic research found that the **main drivers** of the accelerated adoption of technology and data in dispute resolution were:

- a need to do things **faster and in a more cost-efficient manner** compared with in-person ADR<sup>5</sup>;
- **improved access** to opportunities for redress for consumers;
- **flexibility** of an online process compared with the requirement of a physical presence;
- **reduced bias** in decision-making in terms of group-based outcome disparities;
- maintenance of **confidentiality**.<sup>6</sup>

Not only is ODR assuming a greater role over time to complement traditional ADR, but new technologies and online complaints portals are also making it **more convenient** for consumers to register complaints online in the first place, which may lead to disputes being handled virtually subsequently by an ODR. During the pandemic, the case study research (e.g. see travel and financial services case studies) points to a **marked increase in the number of complaints being registered online**, seen as the first stage in the process prior to the complaint being elevated to a dispute handled by an ODR. In other words, **digitalisation is affecting the entire landscape**.

ODR can mean different things for different groups of users, as it covers a **wide range of technologies deployed in different ways**: “from a mediator using Skype to connect with geographically distant parties, to a regulator using multiple technologies to transform the end-to-end experience of resolving a dispute”.<sup>7</sup> It can also include the use of technology in administrative and court processes.<sup>8</sup>

In the table below, we identified some of **the tools that make up the contemporary ODR landscape** grouped into three categories: negotiation facilitation processes, automated negotiation processes, and negotiation support systems. These processes are negotiation models whereby the technology (including AI) replaces the third party. It is important to note that, unlike when ODR first emerged and referred to dispute resolution that relied on information and communications technology (ICT) or was limited to disputes that emerged due to online transactions, these tools are now also often used for facilitating the resolution of offline disputes.

ODR tools	Description
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<sup>5</sup> This driver has important implications for consumer ADR as it offers greater proportionality for resolving low value disputes.

<sup>6</sup> K Mania (2015), Online dispute resolution : the future of justice, <https://www.sciencedirect.com/science/article/pii/S2351667415000074>

<sup>7</sup> Thomson Reuters (2016), The impact of ODR technology on dispute resolution in the UK, White Paper, [https://blogs.thomsonreuters.com/legal-uk/wp-content/uploads/sites/14/2016/10/BLC\\_ODRwhitepaper.pdf](https://blogs.thomsonreuters.com/legal-uk/wp-content/uploads/sites/14/2016/10/BLC_ODRwhitepaper.pdf)

<sup>8</sup> see Council of Europe (2021), Online Dispute Resolution Mechanisms in Civil and Administrative Proceedings, Guidelines, <https://rm.coe.int/publication-guidelines-and-explanatory-memorandum-odr-mechanisms-in-c/1680a4214e>

Negotiation facilitation processes	e.g. <b>secure websites and / or online platforms</b> for parties to exchange documents, share information, and communicate in asynchronous or synchronous ways; e.g. online marketplaces such as eBay and Amazon, or the direct talks module of the European ODR platform;
Automated negotiation processes	e.g. <b>double-blind bidding</b> , which allows parties to analyse their bargaining positions; this is done by evaluating and prioritising their bids, which are kept hidden during the negotiation and only disclosed when both parties reach a settlement; normally, there is an algorithm that evaluates bids from the parties, and settles the case if the offers are within a prescribed range; however, double-blind bidding is only appropriate for resolution of claims where there are no unresolved liability issues and nuisance value has been established; <sup>9</sup> e.g. “Cybersettle” <b>AI-type technology</b> that allows for positional negotiation and algorithms for calculating settlements without human third-party intervention; e.g. “Smartsettle”
Negotiation support systems	<b>software that assists parties in their negotiations</b> by supporting them in determining their own interests through presenting them with different paths (so they can consider a range of options and alternatives), and / or providing an overview of negotiation stages and expert advice on strategies and outcomes; this is to support the user in making an informed decision, such as whether and when to request a mediator to assist with negotiations, or exit the ODR system and return to the traditional court process; e.g. Claims Portal or the Official Injury Claim Portal in England

### 1.3. Use of AI in ODR

We identified **three main uses of AI in ODR** at all stages of the ODR process (outset, mediation / negotiation, resolution), which are as follows:

1. **AI can support parties’ own decision-making**, either in the initial diagnosis phase at the outset of the process, or later on in considering common outcomes in similar cases: it does so by incorporating tools that assist parties’ understanding of their own situation and options, and / or by predicting potential outcomes of certain types of disputes based on previous similar cases;
2. **AI can guide human third-party facilitation**: it does so by enhancing arbitrators’ or adjudicators’ familiarity with decisions rendered under similar circumstances in previous cases, as well as by providing mediators with creative options for dispute resolution;
3. AI is also sometimes used in a negotiation or mediation to **assist parties in drafting documents and in devising agreements** based on their inputs in online exchanges.

Examples of automated decision-making in dispute resolution are rare (e.g. “automated blind-bidding processes” for the resolution of financial disputes by Smartsettle, see section 1.3.2).

There are **two main branches** through which AI enables computers to make decisions and learn without explicit programming, both of which can be applied in the ODR context<sup>10</sup>:

<sup>9</sup> P Cortés (2018), *The Law of Consumer Redress in an Evolving Digital Market: Upgrading from Alternative to Online Dispute Resolution*, Cambridge University Press, p. 48

<sup>10</sup> J Barnett and P Treleaven (2018), Algorithmic dispute resolution – the automation of professional dispute resolution using AI and blockchain technologies, <https://academic.oup.com/comjnl/article/61/3/399/4608879>  
Directorate-General for Justice and Consumers

AI branches	Subdivisions	Application in ODR context
<p><b>Knowledge-based systems (KBS)</b></p> <p><i>Computer programmes that reason; knowledge is presented explicitly as ontologies or rules rather than implicitly via code.</i></p>	<ul style="list-style-type: none"> <li>● <b>rule-based systems:</b> knowledge base contains the domain knowledge coded in the form of IF-THEN or IF-THEN-ELSE rules</li> <li>● <b>case-based reasoning:</b> knowledge based on previous cases; allows for contextualised retrieval of information; information is organised according to meaningful attributes</li> <li>● <b>principle-based approach:</b> this approach considers ideas and ethical standards (principles and values, rights, obligations and recommendations) defined on the individual, social and global levels<sup>11</sup></li> </ul>	<p>Decision Support Systems: compile and provide useful information; provide support for decision processes; propose actions based on the analysis of facts (decision trees, chatbots)</p> <p>Expert Systems: model human knowledge and inference mechanisms; reason similarly to human experts; automation of “simple” tasks by applying an inference engine to knowledge</p> <p>Ontologies: representation of legal knowledge, inference, pattern extraction</p>
<p><b>Machine learning</b></p> <p><i>Computer programmes that can adapt when exposed to new data.</i></p>	<ul style="list-style-type: none"> <li>● <b>supervised learning:</b> inferring a function from labelled training data, where training data consist of a set of training examples</li> <li>● <b>unsupervised learning:</b> inferring a function to describe hidden structures from unlabelled data<sup>12</sup></li> </ul>	<p>Multi-agent Systems: distributed problem solving, implement negotiation protocols, support for argumentation</p> <p>Intelligent Interface: build a layer of abstraction for complex systems; faster, intuitive and more efficient access to information</p>

In the legal context more broadly, other AI technologies can also be regarded as important, such as **natural language processing** (the application of computational techniques to the analysis and synthesis of natural language and speech)<sup>13</sup>, as well as **sentiment analysis** (the process of computationally identifying and categorising opinions expressed in a piece of text).<sup>14</sup> A future-oriented question, for example, is whether natural language processing could be used by ODRs or consumer associations to identify patterns of similar low value cases that might merit a collective action under the Representative Actions Directive. In other words, similar cases could be analysed en masse to gather evidence in relation to such a case.

Finally, the emergence of **blockchain technology**<sup>15</sup> brought the potential for **introducing trust to all transactions**, and is viewed by proponents of ODR as the **trusted “fourth party”, integral to any algorithmic dispute resolution platform**. Blockchains are a way to order transactions in a distributed ledger (a decentralised database where transactions are kept in a shared, replicated, synchronised, distributed bookkeeping record) with a

<sup>11</sup> F Corea et al. (2022) A principle-based approach to AI; the case for European Union and Italy, AI and Society (2022) <https://link.springer.com/article/10.1007/s00146-022-01453-8>

<sup>12</sup> to estimate the amount of data required for unsupervised learning, the most common way is to use the “rule of 10”, meaning that the amount of training data needed is 10 times the number of parameters – or degrees of freedom – in the model; this has important implications for ADR, as the amount of data needed for unsupervised learning most likely exceeds the data available in most ADRs, and could only be achieved if there was an open data solution in place for all European ADR entities.

<sup>13</sup> see also digital assistance technology, which is becoming increasingly popular among consumers, e.g. Siri and Alexa

<sup>14</sup> J Barnett and P Treleaven (2018), Algorithmic dispute resolution – the automation of professional dispute resolution using AI and blockchain technologies, <https://academic.oup.com/comjnl/article/61/3/399/4608879>

<sup>15</sup> There are some implications in the use of blockchain technology within the present EU framework: it can be difficult to accredit ADR entities that operate in a decentralised manner; parties often have anonymity in these blockchain ODRs; pre-dispute arbitration is the most common model; it is difficult to monitor compliance with due process (e.g. how do you ensure that all the jurors are independent in crowdsource ODR).

cryptographic audit trail maintained and validated by multiple nodes. Using this technology, many processes and third-party solutions are streamlined or collapsed entirely.<sup>16</sup> Barnett and Treleaven (2018) identify the following key attributes of blockchains<sup>17</sup> that **remove the need to have a trusted (human) third party to resolve disputes between a group of untrusting parties**:

- Resilience – blockchains operate as decentralised networks as opposed to a central server with a single point of failure
- Integrity – blockchains operate using distributed open-source protocols removing the need to trust a third party for execution
- Transparency – public blockchains have inherent transparency features, since all changes are visible by all parties
- Unchangeable – records in a distributed public blockchain are largely ‘immutable’, allowing applications and users to operate with a good degree of confidence.

As noted by Rabinovich-Einy and Katsh (2021) “**AI [in dispute resolution] is here but in its infancy**”. However they contend that “a growing part of what we now know as judging, resolving disputes informally, legal work, and the administration of justice, whether delivered online or in a physical setting, will involve AI and will become part of **AI-dispute resolution (AI-DR)**”. It remains to be seen whether algorithmic dispute resolution is feasible. This may depend on the sector. For instance, a dispute regarding a digital asset transaction such as the purchase and sale of a cryptocurrency using DLT technologies would be on the ledger database, and could therefore be checked automatically to resolve a dispute, whereas disputes in many sectors involve complexity and require a judgement regarding whether consumer legislation has been broken.

### 1.3.1. Examples of AI in consumer ODR in the EU

In our in-depth interviews, experts noted that **technological developments in consumer ODR in the EU were slow**, also as regards the application of AI. They cited two reasons for this, namely i. **culture** – one expert felt that, in Europe, there is a cultural preference for resolving legal matters and disputes on paper and in-person, rather than through the use of technology, and ii. **the absence of a gap for AI to fill** – one expert felt that ADR bodies work sufficiently well using case management systems and online meeting tools. Another obstacle may also be the **cost of developing bespoke ODR processes**. These have traditionally been very expensive to develop, however, recently, there are software options emerging that allow to license ODR technology at a more affordable cost. Such software include, for example, case management systems or online meeting tools, which can exist independently from knowledge-based systems and do not have to take into account changing procedural rules (or are flexible to accommodate such changes). Finally, moving online requires adapting and learning the use of new systems, which may encounter opposition from users and / or mediators, who are familiar with the existing offline processes. Arguably, these processes are more likely to emerge in competitive markets for ADRs.

All ADR competent authorities interviewed spoke very positively about the use of ODR more broadly, as they felt that it allowed natural persons to get in touch with ADR entities more easily, and “**empowered consumers to seek justice**” in this way. However, only one ADR body that we approached actually used AI in their work, namely the Portuguese Energy Ombudsman (see box 2).

#### Box 2: Portuguese Energy Ombudsman

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<sup>16</sup> J Barnett and P Treleaven (2018), Algorithmic dispute resolution – the automation of professional dispute resolution using AI and blockchain technologies, <https://academic.oup.com/ajil/article/61/3/399/4608879>

<sup>17</sup> *ibid.*

The main Energy Group in Portugal is the EDP<sup>18</sup>, including several companies, namely a national distributor (E-Redes)<sup>19</sup>, a regulated supplier (SU Eletricidade)<sup>20</sup> and a commercial supplier of the competitive market (EDP Comercial)<sup>21</sup>. Each of these companies has an ombudsman who is the same expert, Professor Luis Valadares Tavares.

The ODR system of the EDP was established in 2009. Importantly, the system was **web-based right from the start** – it never operated in a “traditional”, paper-based way. The reason for establishing an ADR body in a fully digitalised way was a recognition on the part of the EDP that they needed a system that was **operational in a very easy and very accessible way**.

The system is based on three distinct websites (<https://provedordocliente.edp.pt/>; [www.provedordoliente.e-redes.pt](http://www.provedordoliente.e-redes.pt) and [www.provedordoliente.sueletricidade.pt](http://www.provedordoliente.sueletricidade.pt)), which provide information about the ombudsman, what the ODR body does, most common complaints, how the complaints process works, and how to submit a claim. It also contains an elaborate feedback system, where claimants are able to report on their experiences of using the ODR body.

Claims are submitted through a **structured form based on three fields with a maximum number of characters**. In one field, claimants specify “what happened”, in the second field, what the negative impact on them was, and in the third field, what compensation they are seeking from the company as a result.

AI is then used to support the process in two ways:

1. **semantic analysis**: AI filters each claim to identify individual words’ meanings, examines relationships between individual words and analyses the meaning of words that come together to form the sentences in the claim. In this way, the system can understand language as humans do. It then refers to a database in which all past claims are stored, and tries to identify about 5-7 most similar previous claims, which it presents to the ombudsman to assist in his decision-making. The system is effective in about 70% of cases, and being able to refer to past decisions allows the ombudsman to save time (he is able to respond to claims usually within 9 days), and also avoid inconsistencies in his decisions on similar claims.
2. after claimants input their expected solution in the third field on the structured form, **the system informs the claimant about the likelihood of getting the desired solution**.

Communication with claimants occurs via e-mail and invoices are also prepared and paid electronically.

The database with all claims and claimants’ information is kept independent from the company and confidential.

The number of clients, cases and the resolution rate for the three companies in 2021 was as follows:

Company	number of clients	number of cases	resolution rate
EDP Comercial	3 224 174	1 194	95%
SU Eletricidade	935 088	219	93%
E-Redes	6 386 219	651	97%

The analysis of the submitted cases is carried out by three **separate teams with a total of less than 10 members**, which is quite low compared to the number of assessed cases. The use of AI allows for a **very short average time spent between the submission of the case and the (non-binding) decision by the ombudsman**, which is immediately sent to the client after about **9 days**. This duration should be compared with the average time estimated for traditional paper-based processes for several European companies exceeding 4 or 6 weeks. Ultimately, it is the ombudsman who assesses the relevance of similarities highlighted between cases by the AI

<sup>18</sup> [www.edp.com](http://www.edp.com)

<sup>19</sup> [www.e-redes.pt](http://www.e-redes.pt)

<sup>20</sup> [www.SUeletricidade.pt](http://www.SUeletricidade.pt)

<sup>21</sup> [www.edp.pt](http://www.edp.pt)



system, meaning that his decisions are not “automatically” based on past cases. Rather, the ombudsman has full autonomy and responsibility for his decisions. The AI system only supports this process, to:

- avoid a lack of consistency between present and past decisions, which is critical for any ADR system;
- facilitate the preparation of each new decision.

**Having a fully digitalised system was not considered to pose a problem for vulnerable consumers** with limited digital skills. In fact, an early attempt by the company to provide physical assistance in local stores for vulnerable consumers to submit their claims online was found to be redundant due to no uptake. In our interview, the expert felt that this was due to Portugal having one of the highest smartphone penetrations in Europe, and a culture based on “microsocial networks of mutual support”, where digitally literate citizens assist those who are less so in submitting their claims online. As an example, the expert mentioned claims received from very elderly consumers that were filed by young students living in their neighbourhood.

Through our desk research, we found other examples of AI use in consumer ODR in the EU. Notably, in France, the now discontinued lawtech start-up **WeClaim**, which was founded in 2015, and allowed for the submission of small claims through a **partially automated dispute resolution system**. In its first 18 months, WeClaim settled over 1000 claims, taking a 25% success fee. Due to a lack of success in the founders’ crowd sourcing effort to fund further developments of the start-up, it did not progress to the second stage of its development, which was to **develop an algorithm to assess a consumer’s claim based on their legal rights under the relevant legal provisions** and court precedents applicable in a given case, which would ask claimants the right questions **to generate and file appropriate legal documents automatically**.

We also identified the following examples of AI used in consumer ODR in the context of **airline claims**:

- **AirHelp**, a company based in Germany, has supported more than 10 million air passengers since launching in 2013 in receiving flight delay compensation. It uses **AI bots to carry out legal assessments (such as checking travel documents) and analyse the chances of success in a claim**. These bots include **robot lawyers** Herman and Lara, which perform about 60% of the company’s initial legal assessments, saving the legal team about 1960 hours of work every month, with an **accuracy rate of 96%**.<sup>22</sup>
- **Yource**, a legal tech company with local domains in nine European countries (e.g. vlucht-vertraagd.nl), which was launched in 2011, supports about **1000 air passengers each day** to enforce their rights using an **automated system that tracks and gathers flight data, weather information and information on previous issues** (e.g. technical problems with aircrafts). These data allow Yource to analyse the probability of a successful claim within seconds, which, if high, allows Yource to move forward with their claiming process **a lot quicker** than an individual passenger or even lawyer would be able to.<sup>23</sup>

However, as confirmed by our experts and in our own extensive desk research, more advanced examples of AI use in consumer ODR can be found outside of the European Union, particularly in Australia, Canada and the United States.

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<sup>22</sup> [How AirHelp is automating flight delay compensation for air passengers \(ns-businessshub.com\)](#)

<sup>23</sup> [Use of AI to enforce Passenger Rights | Flight-delayed.co.uk](#)

### 1.3.2. Examples of AI in consumer ODR in third countries

In the United States and Canada, we identified two companies that provide ODR services which are not human assisted in their negotiation and resolution stages, namely Smartsettle and Modria:

ODR technology	Details
<p><b>Smartsettle</b> is an automated negotiation tool that employs blind bidding.</p>	<p>Parties can state to one another what their reservation price is but also disclose a secret reservation price that leans more towards their adversary (which the algorithm can draw on, if the openly stated reservation prices do not overlap). The algorithm is programmed to reward parties for bargaining more collaboratively by revealing a number that is closer to their true reservation price by declaring an agreed-upon amount that is closer to the collaborative party's stated price than the less collaborative party's offer.</p> <p>Once parties reach a settlement on Smartsettle, they can choose to have the algorithm optimise the resolution by creating an alternative outcome that improves at least one party's overall satisfaction with the agreement without detracting from that of the other side. This is possible because the parties secretly disclose to the algorithm their preferences regarding each of the issues that are being negotiated.</p>
<p><b>Modria</b> is a cloud-based platform that uses AI agents to help negotiate and resolve disputes.</p>	<p>As with Smartsettle, when parties come together on Modria to resolve their dispute, an AI agent asks each party questions about their interests and preferences, then works to facilitate an efficient agreement. Videos are available to explain the process on Smartsettle's website, which state that the system encourages parties to be "reasonable" throughout the negotiation process by favouring the party that is first to enter the "zone of agreement" (the overlapping area defined by what both parties are willing to accept and pay). The system rewards the party that makes the smallest final move and recognises the most generous party.<sup>24</sup></p>

According to one of our experts, **an example for the EU ODR platform to emulate** in how it uses AI to "empower" consumers to seek justice through ODR is the **British Columbia Civil Resolution Tribunal** in Canada. It was established in 2011 and uses an AI tool, the **Solution Explorer**, as the first step in the dispute resolution process (see box 3).<sup>25</sup>

#### Box 3: The Solution Explorer

The Solution Explorer uses questions and answers to give claimants **tailored, plain language legal information, as well as free self-help tools to resolve their dispute even without having to file a claim to the Tribunal**. It uses a basic form of AI called an "Expert System", which makes **specialised legal knowledge widely available to the public**.

The aim of the Solution Explorer is to **empower people to take informed steps in their dispute resolution process**, without having to go to a tribunal or court, through better understanding their

<sup>24</sup> Our review of the videos notes that they are very well presented and clearly explain a rather straight-forward process. However, particularly where parties have vastly differing ideas about pay, favouring the party that is willing to concede the most does raise questions around the fairness of the system.

<sup>25</sup> The Canadian Bar Association British Columbia Branch (2018), What is the Solution Explorer?, <https://www.cbabc.org/BarTalk/Articles/2018/April/Features/What-is-the-Solution-Explorer>

legal issues and their options for solving them. It is meant to **correct the information asymmetry** that can exist between parties who have access to legal expertise and those who do not.

A popular tool is the **Solution Explorer's template letters**, for example demanding repayment of a debt. The letters are pre-written based on information provided by the claimant about their legal issue, and include applicable statutory provisions and deadlines among other information. This is to alleviate the issue of a lack of language skills or confidence on the part of the claimants to write their own formal letters.

Other tools include **debt repayment calculators, tips for negotiation, and coaching on how to have difficult conversations.**

In Australia, we further identified a recently developed diagnostic tool called "**Triage, Resourcing and Modality Matrix (TRAMM)**" which aims to match parties' dispute resolution goals and the context of the dispute to suggest the best fitting dispute resolution process available.<sup>26</sup> TRAMM, which has now been revised and expanded as MyDRHub, **uses algorithms to predict what style of mediation may be most appropriate** in certain cases, and whether to use co-mediation. It distinguishes between disputes that have a 50% chance of settling using mediation from those having a 90% chance of doing so. It may also be used to **design mixed processes, combining evaluative and adjudicative processes with mediation.** It was found particularly valuable where disputants had varying experiences with or cultural approaches to ADR.

TRAMM was developed on the basis of three key research sources, which provided learnings about the relevance of party goals and dispute features, namely:

- The Singapore Report (2016)<sup>27</sup>, where authors identify the needs, wants and expectations of parties in dispute and placed them on a continuum – creating three levels of "dispute saviness" – the expert dispute resolver, the competent dispute resolver, and the ineffective dispute resolver;
- Why do People Settle (2001)<sup>28</sup>, where the author examines assumptions and behaviour of participants in dispute settlement processes, emphasising that how disputants see their position and how they make sense of their conflict has the greatest influence on outcomes;
- Matching Cases and Dispute Resolution Procedures (2006)<sup>29</sup>, where the authors analysis of disputes leads to guidance for lawyers and their clients in selecting a particular process and designing a new or hybrid process specifically fitted to the needs of the parties.

Based on the information collected by trained mediators who input the data into the system from an initial telephone assessment, TRAMM then presents a visual which contains:

- a vertical axis factoring in parties aspirations and goals and linking them to the likelihood of resolution (drawing on The Singapore Report and Matching Cases and Dispute Resolution Procedures);

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<sup>26</sup> F Bogacz and J Lack (2020), 5th key technology: embrace and integrate relevant new technologies, <https://www.mediate.com/5th-key-technology-embrace-and-integrate-relevant-new-technologies/>

<sup>27</sup> D Hutchinson and E Litchfield (2016) The Singapore Report : <https://resolutionresources.files.wordpress.com/2019/01/gpc-series-the-singapore-report.pdf>

<sup>28</sup> J Macfarlane (2001) Why do people settle? <https://resolutionresources.files.wordpress.com/2019/01/gpc-series-the-singapore-report.pdf>

<sup>29</sup> F Sanders and L Rozdeiczer (2006) Matching cases and dispute resolution procedures: [https://www.fd.unl.pt/docentes\\_docs/ma/AGON\\_MA\\_25763.pdf](https://www.fd.unl.pt/docentes_docs/ma/AGON_MA_25763.pdf)

- a horizontal axis identifying and ranking factors likely to help or hinder resolution (drawing on Matching Cases and Dispute Resolution Procedures and Why do People Settle).

### 1.3.3. Examples of AI in consumer ODR on big marketplaces

Big online marketplaces use an array of AI solutions to contribute to their growth primarily within the areas of personalisation and customisation of the buyer experience. They also provide unique features such as chatbots, image-based search or voice search, use automation in their business processes and for inventory forecasting and data-based evaluation of stock levels and prices.

Since these marketplaces support millions of daily transactions, where some disagreements between buyers and sellers are unavoidable, resolving disputes in an accurate, fast and fair manner is of great importance for maintaining a trustworthy platform. Below, we describe the ODR systems of three of the largest online marketplaces (Alibaba, Amazon and eBay), and how they use AI to automate certain processes to resolve disputes between consumers and sellers, who can be either professional businesses (B2C) or private individuals (C2C). However, we were unable to obtain data to verify the fairness and quality of these systems nor independently verify how these systems work (at this stage, any independent verifications are difficult to conduct) , so the descriptions below are exclusively based on desk research.

**Table 1 : Examples of ODR systems of online marketplaces**

Alibaba
<p>The most common disputes on Alibaba concern fake products listed as genuine, price increases after order placement, no product compliance certificate presented or receiving different, delayed or damaged goods.</p> <p>Once a consumers files a complaint on Alibaba, the seller is automatically notified. The consumer and the seller have up to 30 days to reach an agreement. If the seller does not respond within 5 days, or no agreement is reached, the process is escalated to the Alibaba dispute resolution system, which is based on automated negotiation. If unsuccessful, disputing parties may turn to either a user-based jury system, or, as a last resort, to a human customer service representative.</p> <p>99 percent of disputes are resolved through negotiations between buyers and sellers without intervention by Alibaba representatives. This may be due do Alibaba providing strong incentives in the form of a reduction in both the buyers' and sellers' reputational ratings if their dispute requires the involvement of a customer service representative.</p> <p>Alibaba has also introduced incentives into its user-based jury system ("User Dispute Resolution System"), which is a public jury system that is based on registered users who volunteer to serve as jurors. Jury members cast their vote in favor of one of the disputants, and are rewarded with positive reputation credit based on their participation. Alibaba also employs various algorithms to ensure jury members' fair decisions, by selecting them based on a combination of factors to determine their reputation within the system.</p> <p>By adopting a dispute resolution system that goes beyond discrete ODR tools, Alibaba's case data feeds back into their operations, which allows for online dispute prevention.<sup>30</sup></p>
Amazon

<sup>30</sup> E Katsh and O Rabinovich-Einy (2017) Digital Justice: Technology and the Internet of Disputes, p. 66

Amazon lists the European ODR platform for its EU-based users and customers and the Centre for Effective Dispute Resolution (CEDR) for both EU and UK citizens to submit their claims. For the European ODR platform, business users can only enter a dispute if the consumer is residing in certain countries (B2C). They can submit their cases for free, but might get charged by their chosen dispute resolution body. The CEDR Amazon scheme applies only to traders, as it is done in compliance with the Regulation 2019/1150, which excludes consumers from its scope. With CEDR, half of the fees are paid by Amazon, and the other half by the claimant (ca. EUR 250). If the claimant wins, they get reimbursed.<sup>31</sup>

Although the CEDR scheme is called mediation, it is in practice a non-binding adjudication, where the third party neutral evaluates the documents submitted by Amazon and the business, and writes a non-binding decision which outlines recommendations that Amazon should follow (but is free to ignore). If they are unable to resolve it, and the claim is eligible for mediation, the claimant receives a mediation code. Having received the code, the claimant can use the CEDR website to submit their application. When mediation (which is documents only adjudication) concludes in the claimant's favor, CEDR reimburses the fees they paid.

Amazon reviews requests and attempts to resolve any disputes between consumers and third-party traders through the Amazon Pay A-to-z Guarantee without mediation within 45 days. This only applies to the purchase of physical goods, and does not cover payments for services, payments made via the Send Money or Request Money features, digital merchandise, cash equivalent instruments (including retail gift cards) and prohibited items).<sup>32</sup> Claims can only be filed when items are considered “materially different” than described, meaning they are the wrong version / edition, their condition or details are not as described, they are wrong, missing parts or components, defective or damaged.

For its own retail business, Amazon developed an “intent-based router” built using machine learning algorithms where the complaints are organized and segregated based on the expression and emotion that their complaints are showing. For example – the complaints which are less confrontational are resolved using the replacement of the product, while those that are more aggressive require the company to pay some extra credits to the customer for the losses they have faced.<sup>33</sup> This is not disclosed to the consumer, although arguably should be.

## eBay

The eBay Resolution Center is meant to help both buyers and sellers in case they have a problem with an item they bought, or sold, on eBay. With over 60 million disputes per year, it is one of the biggest ODR systems in the world.

The two most common reasons for opening disputes are not receiving an item, or receiving an item that was significantly not as described in the original listing.

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<sup>31</sup>

[https://sellercentral.amazon.de/gp/help/external/G67ETGRC3ZJQBTVT?language=en\\_DE&ref=efph\\_G67ETGRC3ZJQBTVT\\_cont\\_521](https://sellercentral.amazon.de/gp/help/external/G67ETGRC3ZJQBTVT?language=en_DE&ref=efph_G67ETGRC3ZJQBTVT_cont_521)

<sup>32</sup> [Online Payment Service | Amazon Pay ; Amazon lets consumers file complaints for faulty goods from 3p sellers \(cnbc.com\)](#)

<sup>33</sup> GeeksforGeeks (2022), How Amazon uses Machine Learning?, <https://www.geeksforgeeks.org/how-amazon-uses-machine-learning/>

When opening a dispute, both buyers and sellers are advised to contact the other side before reporting an issue, and see if they can work things out. Once escalating an issue in the Resolution Center, both sides have a period of a few days to reach an agreement.

At this stage, the system uses a model of problem diagnosis followed by automated negotiation, which is based on simple rules such as “if tracking information shows that the item has not arrived, and the seller does not respond, the buyer wins the case”. Using these types of algorithms, eBay succeeded in resolving 90% of disputes without human intervention from an eBay employee.<sup>34</sup>

However, if an issue is not resolved, the dispute is moved to the resolution of a human arbitrator on behalf of eBay. During the entire period, the seller and buyer can communicate via messages, which will later be available to the arbitrator to be considered for resolution purposes.

Moreover, the eBay ODR system is considered exemplary in the field of dispute prevention. By studying data uncovered in the dispute resolution process, eBay has managed to uncover common sources of problems and to structure information and services on its site so that these problems do not occur.<sup>35</sup>

## 1.4. Advantages and disadvantages of AI use in ODR

Through our desk research and in-depth interviews, we identified the following main advantages that AI poses for ODR:

4. **Enhanced efficiency, accuracy and capacity:** by allowing for the prediction of outcomes of certain disputes or claims, the use of AI could make negotiations in the shadow of the law swifter and more precise, while bringing parties closer together; AI also allows for the processing of larger amounts of data, which might not be accessible or could be omitted by the parties.<sup>36</sup>
5. **Design preventive systems and identify recurring conflicts:** AI can facilitate the assessment of common characteristics of diverse claims and the effectiveness of their resolution, highlighting information or processes that can help to resolve claims at an early stage; it can also be used to identify sudden spikes in specific dispute types and repetitive patterns of certain complaint types.
6. **Improve fairness** by enhancing consistency and limited discretion, and **reducing biases** through design and language choices of the ODR process (however, AI also poses disadvantages in the context of fairness, see points 2. and 3. below).
7. **Empower consumers** by educating disempowered disputants about their options and pairing disputants with the most appropriate dispute resolution process that matches their familiarity and experience with ADR.

However, in our desk research, we noted **concerns about the degree to which AI can replicate the ability of humans** in dispute resolution to perform their roles, given that a qualitative judgement may be needed that takes into consideration the standpoint of the

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<sup>34</sup> However, it has not be noted that eBay is not a neutral party in dispute resolution and its resolution system is specifically built to alleviate losses for eBay itself. Moreover, a study on designing eBay’s online resolution system (Rule, 2017) shows that the system developed over several years based on trial and error, meaning that many users were left with their disputes unresolved or resolved unfairly. Data on the “fairness” of the current system is not available.

<sup>35</sup> O Rabinovich-Einy and E Katsh, (2021), Artificial Intelligence and the Future of Dispute Resolution: The Age of AI-DR, [https://papers.ssrn.com/sol3/papers.cfm?abstract\\_id=3830033](https://papers.ssrn.com/sol3/papers.cfm?abstract_id=3830033)

<sup>36</sup> *ibid.*

consumer and the trader. This is often a delicate balance, requiring an understanding of both the letter and spirit of the law, not only the letter (whereas AI can only run an automated check against formal legislative requirements. However, the relatively brief experience with ODR has demonstrated that software can, where appropriately designed, successfully fulfil at least some of these functions.

Other **disadvantages** of the use of AI in ODR identified in the desk research and interviews included issues such as:

1. **need for a standardised structure or system for dispute resolution:** machine learning only works if extensive data is able to be fed into the AI system, otherwise automated decision making is not possible; the use of machine learning will only work if there is a standardised structure or system for dispute resolution whereas many cases are complex with variations between cases; in many Member States, especially small population countries, ADR entities are often small and handle relatively few complaints therefore they don't generate sufficient data for AI to be used.
2. **the accuracy, accountability, fairness, and transparency of algorithms:** algorithms run on models and models inevitably simplify reality and therefore are bound to make mistakes; sometimes, these are not mistakes, but biases; models reflect human values and as such often reflect our own biases and stereotypes (see Box 3 for ethical guidelines on the use of AI).
3. **exacerbate existing drawbacks of various dispute resolution processes:** by running on models and previous cases, there is a high risk of intensifying the previous drawbacks, repeating built in biases.
4. **may impact the quality of the process, as well as the quality of interpersonal treatment,** since the process involves less humans
5. **concerns over data protection and the privacy of users,** online protection focusing on the confidentiality of cases (at the same time, the data is needed in order to educate and create algorithms)<sup>37</sup>

Overall, our interviewees considered **ADR to be predominantly a “human process”**. They felt that it might be easy to teach the law to AI, but not reasonableness and fairness, and that AI was therefore not useful for any legal analysis of cases. They found that it was most suited for **fields that are comprehensively and clearly regulated** (e.g. passenger travel), and was best utilised for issues that require **“black and white” thinking** (e.g. contract terms, fee payments, delivery and non-delivery, parking tickets). This is especially true for **some sectors, e.g. financial services, where “the law is only one part of the story”**. In such sectors especially, ADRs need to consider **fairness and reasonableness issues in relation to the specific circumstances of the case rather than only formal compliance or non-compliance** with the legislation. **Assessing fairness and reasonableness demands a qualitative judgment taking into consideration multiple factors**, which would be difficult to standardise through an AI system.

One interviewee raised doubts whether AI could, for example, reasonably assess from a picture that a product was damaged (which is true for ODR in general, not just in the context of AI). Some interviewees also found that **cross-border cases would be too complex for AI to handle**, as such cases required a lot of research and consultation on the part of ADR or ODR entities concerned. We note that currently, there is no comprehensive EU-wide knowledge base, the existence of which may change such views.

In general, interviewees mentioned that, in their opinion, AI was “safest” to use to help users create accounts and assist them with uploading their complaints into a system, as well as

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<sup>37</sup> Indeed, a study showed that data anonymization may be impossible to achieve for large datasets: [‘Anonymised’ data can never be totally anonymous, says study | Data protection | The Guardian](#)

to analyse (screen / filter) legal texts and documents, which could assist an ODR lawyer in analysing a case.

### Box 3: Ethical guidelines on the use of AI in justice

Concerns about the ethical use of AI in justice have led various entities, public and private, to generate principles, best practices and ethical guidelines. In all of these guidelines, **fairness, transparency, and accountability of AI systems feature prominently as central elements of ethical algorithmic design**. In the EU policy context, these include:

- European Parliament, The ethics of artificial intelligence: Issues and initiatives, 2020
- European Parliament resolution of 12 February 2020 on automated decision-making processes: ensuring consumer protection and free movement of goods and services
- European Commission Ethics Guidelines for Trustworthy Artificial Intelligence, 2019
- Proposal for an AI Regulation laying down harmonised rules for the EU (Artificial Intelligence Act), 2021
- Council of Europe, European ethical Charter on the use of Artificial Intelligence in judicial systems and their environment, 2018
- BEUC – Regulating AI to protect the consumer, Position Paper on the AI Act, 2021
- JRC AI Watch - National strategies on Artificial Intelligence: A European perspective, 2022 edition

Corea et al. (2022)<sup>38</sup> specify in their approach to a principle-based AI system the following principles at the individual level:

- **human dignity** (in its most fundamental sense, understood as the intrinsic value that pertains to every individual as a human being), which can be significantly at risk from technologies that do not capture the intrinsic value of each individual by dissolving its particularity in the generality of statistical models;
- **freedom and civil liberties** (as per the definition of the Universal Declaration of Human Rights, which recognises the right of all people to freedom, justice, and adequate standard of living, health and well-being), where, thanks to AI, the immaterial dimension has become the main user interface for the social and economic relations of people, where these rights must be ensured in a substantial (not just formal) way, balancing the existing gaps in the material dimension between different individuals and including a particular caution for the weakest people who statistically would be relegated to outliers in the statistical models;
- **non-discrimination** (as affirmed in the Charter of Fundamental Rights of the European Union), which can be at risk due to data collected and used in machine learning systems describing the social fabrics incorporating the related prejudices – in the absence of specific precautions and provisions, statistical models could materialise and possibly amplify these biases.

## 1.5. Prospective use of AI in ODR in the European Union

When asked whether they can identify any barriers to the uptake of AI by ADR / ODR bodies, interviewees were divided in their views. On the one hand, they mentioned that in terms of digitalisation, ADR bodies did sufficiently well with case management tools and online meeting tools, and that there simply was no gap for AI to fill. On the other hand, they

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<sup>38</sup> F Corea et al. (2022) A principle-based approach to AI; the case for European Union and Italy, AI and Society (2022) <https://link.springer.com/article/10.1007/s00146-022-01453-8>



emphasised that **AI was crucial in “empowering” consumers to seek justice in a quicker and more accessible way**, and that the main barrier was funding (i.e. the difficulty in generating sufficient confidence or interest for up front investment) – the key reason why technologically-innovative ODR initiatives (such as WeClaim in France, see section 1.3.1) “crop up en masse and disappear just as quickly”.

This is why some interviewees felt that the main way in which the Commission could support AI developments in the ODR context was to **provide funding for such initiatives**, and **provide opportunities for leaders of such initiatives to meet and exchange ideas and best practices**. One expert specified that what they felt was missing was a “process development approach” to ODR which the Commission could guide, meaning how we want ODR to look like in Europe the future, also including the role that AI would play in this process. This also includes how ADR entities that rely on AI may be certified (e.g. who would be able to look into the black box and determine if decisions are fair and unbiased). However, some interviewees also felt that there was no place for the Commission to get involved in these types of developments, as they felt that they should be exclusively led by the private sector. This was because some interviewees were concerned that any political inputs into such developments tended to stifle them and make them shaped by political decisions, which they considered not beneficial for the final product.

As regards the **EU ODR platform**, interviewees were unanimous in their opinion that the platform could be significantly improved, as in its current form they viewed it as “merely an ADR switchboard” i.e. signposting to the services of relevant national ADR and/ or ODR entities. However, they were **split on the extent to which they believed that the EU ODR platform should include AI technology**. The idea of a chatbot was raised, which one ODR contact point found to be a bad idea, since they felt that consumers who end up on the EU ODR platform usually already went through several chatbots of companies to no avail. A representative from an ADR authority, however, felt that a chatbot could add value to the platform by assisting users with creating an account and uploading their complaint. Finally, one expert felt that the EU ODR platform could go a lot further in its ambitions, and truly seek to “empower” consumers seeking justice through the use of AI, by taking the **Solution Explorer** of the British Columbia Civil Resolution Tribunal as an example on how to provide free self-help tools to claimants and work to **alleviate the information asymmetry** that exists between those people who are more and less familiar with the law.

## 1.6. Summary (findings, shortcomings and lessons learnt)

Whilst AI provides some opportunities for the processing of disputes and their resolution through ODR platforms, it may not be suitable for all sectors, given the role of ODR in taking a neutral view that strikes a delicate balance between ensuring that consumer protection rights are respected whilst not damaging traders’ competitiveness. In other words, in many sectors, mediation services require a professional skills set that would be difficult to replace entirely with AI-based tools.

However, there are several examples of potential use cases highlighted in this case study that could help to raise awareness of the potential role of ADR in partially or even in some cases fully resolving disputes.

Given the need for funding to develop more convincing and better known use cases, the possibility of some EU pilot funding for the use of AI in ODR should be considered by the Commission.

## 1.7. Methodology: Interview sample and documents reviewed

**Table 1 : Overview of stakeholders consulted for case study**

Stakeholder type	Country (if national level)	Organisation / Name	Interview status
EU Trade Organisation	EU	Ecommerce Europe	completed
Legal Tech Practitioner	Sweden	Climate Change Council	completed
Legal / AI expert	EU	Marco Giacalone	completed
ADR entity	Portugal	Energy Ombudsman	completed
ODR contact point	Italy		completed
ODR contact point	Germany		completed
ODR contact point	Netherlands		completed
ADR competent authority	Italy	AGCOM	completed
ADR competent authority	Netherlands	Ministry of Justice	completed
ADR competent authority	Germany	Federal Office for Justice	completed
ADR entity	Malta	OAFS Financial Arbitrator	completed

**Table 2 : Overview of documents reviewed**

Document type	Year	Author / organisation	Document name / title	Weblink
Academic paper	2022	Josephine Bhavani Rajendra and Ambikai S. Thursaisingam	The deployment of artificial intelligence in alternative dispute resolution: the AI augmented arbitrator	<a href="https://www.tandfonline.com/doi/abs/10.1080/13600834.2021.1998955">https://www.tandfonline.com/doi/abs/10.1080/13600834.2021.1998955</a>
Academic paper	2022	Francesco Corea, Fabio Fossa, Andrea Loreggia, Stefano Quintarelli, Salvatore Sapienza	A principle-based approach to AI: the case for European Union and Italy	<a href="https://link.springer.com/article/10.1007/s00146-022-01453-8">https://link.springer.com/article/10.1007/s00146-022-01453-8</a>
Academic paper	2021	Orna Rabinovich-Einy and Ethan Katsh	Artificial intelligence and the future of dispute resolution: the age of AI-DR	<a href="https://papers.ssrn.com/sol3/papers.cfm?abstract_id=3830033">https://papers.ssrn.com/sol3/papers.cfm?abstract_id=3830033</a>
Academic paper	2018	Jeremy Barnett and Philip Treleaven	Algorithmic Dispute Resolution – the automation of professional dispute resolution using AI and blockchain technologies	<a href="https://academic.oup.com/comjnl/article/61/3/399/4608879">https://academic.oup.com/comjnl/article/61/3/399/4608879</a>
Academic paper	2017	Colin Rule	Designing a global online dispute resolution system: lessons learned from ebay	<a href="https://www.stthomas.edu/~stthomas.edu/Designing_a_Global_Online_Dispute_Resolution_System:_Lessons_Learned_from_eBay">Designing a Global Online Dispute Resolution System: Lessons Learned from eBay (stthomas.edu)</a>
Academic paper	2015	Karolina Mania	Online dispute resolution: the future of justice	<a href="https://www.sciencedirect.com/science/article/pii/S2351667415000074">https://www.sciencedirect.com/science/article/pii/S2351667415000074</a>

Academic paper	2006	Frank Sander, Lukasz Rozdeiczerdl	Matching cases and dispute resolution procedures: detailed analysis leading to a mediation-centered approach	<a href="https://www.hnlr.org/wp-content/uploads/sites/22/2012/04/MATCHING_CASES_AND_DISPUTE_RESOLUTION_PROCEDURES_DETAILED_ANALYSIS_LEADING_TO_A_.doc">https://www.hnlr.org/wp-content/uploads/sites/22/2012/04/MATCHING_CASES_AND_DISPUTE_RESOLUTION_PROCEDURES_DETAILED_ANALYSIS_LEADING_TO_A_.doc</a>
Academic paper	2001	Julie Macfarlane	Why do people settle?	<a href="https://lawjournal.mcgill.ca/wp-content/uploads/pdf/2093864-46.3.Macfarlane.pdf">https://lawjournal.mcgill.ca/wp-content/uploads/pdf/2093864-46.3.Macfarlane.pdf</a>
Academic book	2018	Pablo Cortes	The law of consumer redress in an evolving digital market: upgrading from Alternative to Online Dispute Resolution	
Academic book	2017	Orna Rabinovich-Einy and Ethan Katsh	Digital justice: technology and the internet of disputes	
Blog	2022	GeeksforGeeks	How Amazon uses machine learning	<a href="https://www.geeksforgeeks.org/how-amazon-uses-machine-learning/">https://www.geeksforgeeks.org/how-amazon-uses-machine-learning/</a>
Blog	2020	Francois Bogacz, Jeremy Lack	5 <sup>th</sup> key technology: embrace and integrate relevant new technologies	<a href="https://www.mediate.com/5th-key-technology-embrace-and-integrate-relevant-new-technologies/">https://www.mediate.com/5th-key-technology-embrace-and-integrate-relevant-new-technologies/</a>
Blog	2018	The Canadian Bar Association British Columbia Branch	What is the Solution Explorer?	<a href="https://www.cbabc.org/BarTalk/Articles/2018/April/Features/What-is-the-Solution-Explorer">https://www.cbabc.org/BarTalk/Articles/2018/April/Features/What-is-the-Solution-Explorer</a>
Charter	2018	European Council	European Ethical Charter on the use of artificial intelligence in judicial systems and their environment	<a href="https://rm.coe.int/ethical-charter-en-for-publication-4-december-2018/16808f699c">https://rm.coe.int/ethical-charter-en-for-publication-4-december-2018/16808f699c</a>
Guidelines	2021	Council of Europe	Online dispute resolution mechanisms in civil and administrative court proceedings	<a href="https://rm.coe.int/publication-guidelines-and-explanatory-memorandum-odr-mechanisms-in-c/1680a4214e">https://rm.coe.int/publication-guidelines-and-explanatory-memorandum-odr-mechanisms-in-c/1680a4214e</a>
Guidelines	2019	European Commission	Ethics Guidelines for trustworthy artificial intelligence	<a href="https://ec.europa.eu/futurium/en/ai-alliance-consultation.1.html">https://ec.europa.eu/futurium/en/ai-alliance-consultation.1.html</a>
Media publication	2020	Flight-delayed.co.uk	How Yource uses AI to enforce passenger rights	<a href="https://www.flight-delayed.co.uk/news/2020/11/18/how-yource-uses-ai-to-enforce-passenger-rights">https://www.flight-delayed.co.uk/news/2020/11/18/how-yource-uses-ai-to-enforce-passenger-rights</a>
Media publication	2019	Dan Robinson, NS Business	How AirHelp is automating flight delay compensation for air passengers – and taking legal fight to airlines	<a href="https://www.ns-businesshub.com/technology/airhelp-flight-delay-compensation/">https://www.ns-businesshub.com/technology/airhelp-flight-delay-compensation/</a>
Position paper	2021	BEUC	Regulating AI to protect consumers	<a href="https://www.beuc.eu/publications/beuc-x-2021-">https://www.beuc.eu/publications/beuc-x-2021-</a>

				<a href="#">088_regulating_ai_to_protect_the_consumer.pdf</a>
Proposal	2021	European Commission	Proposal for a regulation of the European Parliament and of the Council laying down harmonised rules on artificial intelligence (Artificial Intelligence Act) and amending certain union legislative acts	<a href="https://eur-lex.europa.eu/legal-content/EN/TXT/HTML/?uri=CELEX:52021PC0206&amp;from=EN">https://eur-lex.europa.eu/legal-content/EN/TXT/HTML/?uri=CELEX:52021PC0206&amp;from=EN</a>
Report	2016	Danielle Hutchinson and Emma-May Litchfield	The Singapore Report: Shaping the future of dispute resolution and improving access to justice	<a href="https://resolutionresources.files.wordpress.com/2019/01/gpc-series-the-singapore-report.pdf">https://resolutionresources.files.wordpress.com/2019/01/gpc-series-the-singapore-report.pdf</a>
Resolution	2020	European Parliament	European Parliament resolution of 12 February 2020 on automated decision-making processes: ensuring consumer protection and free movement of goods and services (2019/2915(RSP))	<a href="https://eur-lex.europa.eu/legal-content/EN/TXT/?uri=CELEX%3A52020IP0032">https://eur-lex.europa.eu/legal-content/EN/TXT/?uri=CELEX%3A52020IP0032</a>
Study	2020	Think Tank European Parliament	The ethics of artificial intelligence: issues and initiatives	<a href="https://www.europarl.europa.eu/thinktank/en/document/EPRS_STU(2020)634452">https://www.europarl.europa.eu/thinktank/en/document/EPRS_STU(2020)634452</a>
Technical report	2022	JRC	AI Watch. National strategies on artificial intelligence: a European perspective	<a href="https://publications.jrc.ec.europa.eu/repository/handle/JRC129123#:~:text=AI%20Watch,-,National%20strategies%20on%20Artificial%20Intelligence%3A%20A%20European%20perspective,2022%20edition&amp;text=This%20report%20provides%20an%20in-Plan%20on%20AI%20review%202021.">https://publications.jrc.ec.europa.eu/repository/handle/JRC129123#:~:text=AI%20Watch,-,National%20strategies%20on%20Artificial%20Intelligence%3A%20A%20European%20perspective,2022%20edition&amp;text=This%20report%20provides%20an%20in-Plan%20on%20AI%20review%202021.</a>
White paper	2016	Thomson Reuters	The impact of ODR technology on dispute resolution in the UK	<a href="https://blogs.thomsonreuters.com/legal-uk/wp-content/uploads/sites/14/2016/10/BLC_ODRwhitepaper.pdf">https://blogs.thomsonreuters.com/legal-uk/wp-content/uploads/sites/14/2016/10/BLC_ODRwhitepaper.pdf</a>