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A Scoping Review of Ethical Issues in Cyberjustice Research.

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Table des matières

| | |
|---|----|
| I. Introduction | 4 |
| II. Methodology | 5 |
| III. Findings | 7 |
| III.1 Unclear definitions and conceptual overlap | 9 |
| III.2 Uncertainties about ethical biases | 19 |
| III.3 Different perspectives on ethics or ethical issues | 20 |
| IV. Conclusion | 22 |
| V. References | 23 |
| VI. Appendices | 27 |

Abstract

The use of AI in the context of justice is becoming more and more pervasive. While the ethical issues raised by the use of AI in the justice context have received increasing attention from researchers and practitioners, our understanding of the nature of these issues remains fragmented. The objective of this scoping review is therefore to take stock of current research on the ethical issues related to the use of AI in the judicial system in order to better understand its nature, and to draw a global portrait in order to identify gaps and guide future research on these issues.

Keywords: Cyberjustice, Artificial intelligence, Ethics, Ethical issues, Scoping review.

I. Introduction

The use of AI in the context of justice is becoming more and more pervasive. Indeed, the use of technologies, and in particular technologies based on artificial intelligence, is experiencing constant growth in this field. Although the introduction of such technologies has generated many benefits for judicial actors, for example by improving the efficiency of the judicial process, by facilitating access to justice, or by improving the processing and analysis time of legal documents (Chen et al. 2012; LawGeex, 2018), these tools have raised important ethical questions. Indeed, several studies have shown that the use of artificial intelligence in a judicial context sometimes harms the interests of individuals in the name of protecting the public or in the name of improving the efficiency or speed of the justice system process (Douglas et al., 2017). Other studies suggest that most AI-based decision-making tools (or algorithms) have low to moderate accuracy in most cases (Dressel and Farid, 2018; Fazel et al., 2012), and tend to be more unfavourable towards ethnic minorities, thus amplifying discrimination and inequalities within the justice system (Angwin et al., 2016; Douglas et al., 2017; Kehl et al. 2017; Partnership on AI, 2020) .

While the ethical issues raised by the use of AI in the justice context have received increasing attention from researchers and practitioners, our understanding of the nature of these issues remains fragmented. The objective of this scoping review is therefore to take stock of current research on the ethical issues related to the use of AI in the judicial system in order to better

understand its nature, and to draw a global portrait in order to identify gaps and guide future research on these issues.

The remainder of this article is divided as follows. First, the methodology which guided this study will be presented. Secondly, the main results of the literature review will be presented, followed by a conclusion including avenues for future research.

II. Methodology

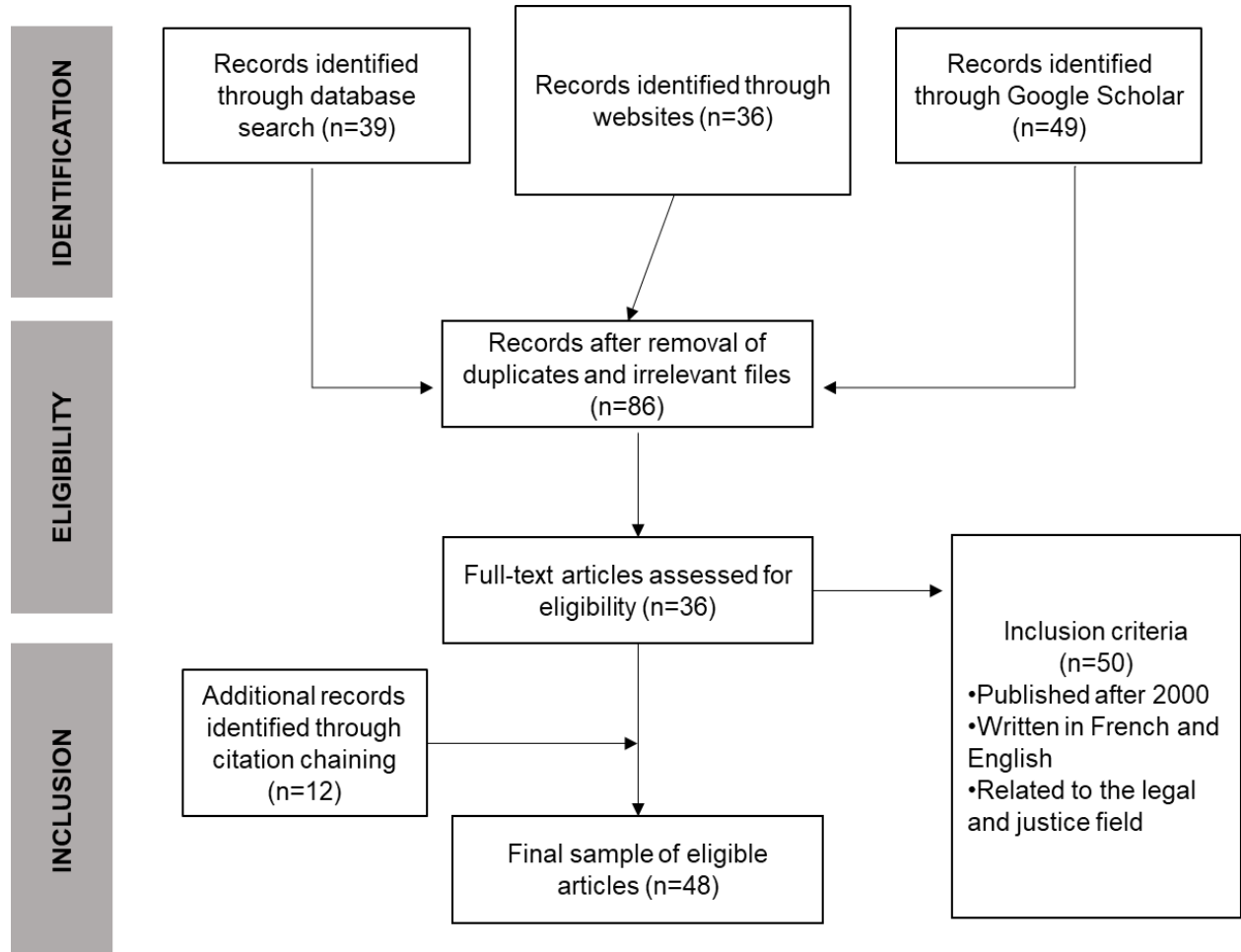
We performed a scoping review of existing literature about the ethical issues in the context of justice. The objectives of scoping reviews are “to map rapidly the key concepts underpinning a research area and the main sources and types of evidence available, and can be undertaken as stand-alone projects in their own right, especially where an area is complex or has not been reviewed comprehensively before” (Mays and al., 2001). Scoping reviews help understand the potential size and nature of the overall literature about a specific topic (Paré and al., 2015). They tend to focus on the breadth of coverage of the literature rather than on the depth of coverage (Paré and al., 2015). We therefore adopted a scoping review approach in order to: a) investigate the extent, range and nature of ethical ethical issues in the context of justice; b) determine the value of undertaking a full systematic review on this topic; c) summarize and disseminate research findings; and d) identify the potential gaps in existing literature (Arksey and O’Malley, 2005). We developed a sources search and retrieval process strategy using the Preferred Reporting Items for Systematic Reviews and Meta-Analyses (PRISMA) framework (Liberati and al., 2009). To achieve comprehensiveness and systematicity, different search strategies were used, including a citation chaining strategy, a screen of the literature via a search engine and associated websites, as well as a search of online databases.

First, a keyword-based search of seven databases (*JSTOR*, *SSRN*, *IEEE Xplore*, *Cairn*, *HeinOnline*, *ScienceDirect* and *ABI/INFORM*) was performed. Thirty nine (39) sources were found with twenty four (24) of them selected after removal of duplicates and irrelevant titles. Second, a keyword-based web search of the *Cyberjustice.ca* website was performed. Thirty six (36) sources were found with nine (9) of them selected after removal of duplicates and irrelevant titles. Third, a keyword-

based web search of Google Scholar was performed in English and French to find more articles. The following keywords: were used: [cyberjustice ethics] , [justice prédictive éthique], [justice prédictive enjeux], [principe intelligence artificielle éthique], [ethics online dispute resolution], [éthique litiges en ligne], [ODR ethics], [online dispute resolution fairness], [e-mediation ethics], [ODR justice ethical], [AI justice ethics]. Forty nine (49) sources were found with nine (9) of them selected after removal of duplicates and irrelevant titles. After screening the 86 initial records, 50 of them were excluded based on our inclusion/exclusion criteria and text screening. We only included articles written in English and in French published between 2000 and 2021 in the legal and justice fields. Moreover, to ensure theoretical saturation, we used citation chaining in order to identify missing sources until no additional relevant document could be identified. Twelve (12) additional sources were included. Finally, sources identified via one search method and which appeared during another one were not selected again to avoid duplication.

Figure 1 describes the flowchart of our search and retrieval process based on the PRISMA framework for systematic reviews. Using three different search tools (online databases, Google Scholar and Cyberjustice.ca.) and citation chaining, we retained a final sample of 48 articles.

Figure 1. PRISMA-based flowchart of the search and retrieval process



III. Findings

Our analysis of the 48 articles shows that thirteen ethical issues have been mainly studied in the literature. Table 1 indicates the frequency with which each of these issues has been studied, as well as their associated concepts, that is the concepts that have been defined in a similar way but that have been labeled differently. We observe for example, that the concept of fairness has been studied in 37 articles out of 48, but that this concept has been alternatively labeled justice or equity or neutrality etc.

Table 1. Main ethical issues studied in the literature

| Ethical issues | Number of occurrences | Associated concepts |
|------------------------|------------------------------|--|
| Fairness | 37/48 | Fairness, justice, neutrality, (non-)bias,(non-discrimination), equity, equal treatment, equality, consistency, access for all, choice |
| Transparency | 26/48 | Transparency, communication, participation, clarity |
| Privacy | 21/48 | Privacy, confidentiality, security, anonymization |
| Impartiality | 17/48 | Impartiality, independence, objectivity |
| Trust | 11/48 | Trust, trustworthiness, loyalty |
| Responsibility | 10/48 | Responsibility, accountability, public accounting, obligation |
| Autonomy | 9/48 | Autonomy, freedom, liberty, self-determination, empowerment |
| Accessibility | 8/48 | Accessibility |
| Reliability | 7/48 | Reliability, safety, integrity, honesty, expertise, confidence |
| Competence | 7/48 | Competence, expertise |
| Affordability | 5/48 | Affordability |
| Respect | 4/48 | Respect |
| Conflicts of interests | 4/48 | Conflicts of interests |

More fundamentally, our analysis of the 48 articles of the literature review allowed us to draw three main observations: First, we found that a significant portion of the papers were characterized by unclear definitions and conceptual overlap, second, we observed that there were several uncertainties about ethical biases, and third, we found that the papers adopted different perspectives on ethics or ethical issues.

III.1 Unclear definitions and conceptual overlap

Our scoping review shows that only 23 papers out of 48 provided a definition or perspective on ethics related to the use of AI in a justice/legal context, while more than 30% of the papers did not provide a systematic definition of the ethical issues they identified. The review also shows that 21 papers out of 48 (43,75%) were empirical.

Our analysis also indicates that a number of papers adopted different perspectives on similar concepts. As shown in Table 2, several concepts have been viewed or defined differently in the literature which creates important conceptual confusion and prevents from a systematic and rigorous accumulation of knowledge.

For example, accessibility has been defined as ease of use (Queck Anderson 2019; Raymond and Shakelford 2013), access to technology (Nauss and Exon 2016), or as a dimension of Trust (Abedi et al. 2019). Similarly, transparency has been defined as accessibility to all information about all aspects of the technology in use (Raymond and Shakelford 2013), quantity of information provided to the parties in relation to the process' procedures and its quality (Lavi 2015), or information about the operational and intermediate data of algorithms (Bourcier and De Filippi 2018).

Moreover, our review shows the existence of similar definitions of different concepts, which also creates conceptual confusion and prevents from reaching a clear understanding on the issues at stake.

For example, equality, justice, impartiality, fairness, equal treatment, and consistency were defined similarly the literature (Wing 2016; Xu et al. 2008; Nauss and Exon 2016; Lavi 2015; Abedi et al. 2019). Likewise for the concepts of participation, autonomy, empowerment, transparency (Cho 2019; Mittelstadt et al. 2016; Queck Anderson (2019), and also for impartiality, neutrality, independence, objectivity, and fairness (Lavi 2015; Queck Anderson 2019; Cortés 2008; Legg 2016).

Table 1 – Conceptual Overlap between ethical issues

| Ethical issue | Definition | Article |
|-----------------------|---|--|
| Accessibility | “ODR systems should be accessible in that they are easy to find and access, but accessible also in the sense that they address geographical and language barriers striving to become media neutral in order to encourage the widest access.” Access also means parties should have access to justice. Nonetheless, technology should not be imposed on those who cannot interact with technology nor discourage those who can profit from using ODR” p.630 | Ethic and online dispute resolution : from evolution to revolution – Nauss Exon (2016) |
| | “The design and implementation of efficient and effective processes provide for their usage, not only to the broadest range and number of people, but also by accounting for the reality of cultural differences within and between jurisdictions, as well as differential access to resources and experiences of marginalization that can hinder access to dispute resolution and justice processes, whether formal or informal. ODR systems and processes effectively facilitate and do not limit the right to representation for parties in processes of dispute resolution” p.25 | Ethical Principles for Online Dispute Resolution – Wing (2016) |
| | “ease of use” p.518 | Technology, ethics, and access to justice: should an algorithm be deciding your case? – Raymond and Shackelford (2013) |
| | “With respect to accessibility, the intention is that the model of e-Mediation must be available and easy to use for the consumers of the service. Similarly, it must aid in overcoming the language barriers. Additionally, this platform must include the possibilities of easy to use and available assistance and guidance, while preserving user interfaces that are as simple as possible.” p.532 | No more click? Click in here: e-Mediation in Divorce Disputes – the reality and the desirable – Lavi (2015) |
| | “ODR systems should be accessible in that they are easy to find and access, but accessible also in the sense that they address geographical and language barriers. Insofar as it is possible, ODR systems should strive to become media neutral in order to encourage the widest access. The Online Dispute Resolution technology developed must reflect an ease of use to all system users. ODR platforms should make help content and tutorials readily available to users, and strive to keep user interfaces as simple and intuitive as possible. The use of technology in Online Dispute Resolution must increase parties' access to justice.” p.2 | Online Dispute Resolution Standards of Practice - Advisory Committee of the National Centre for Technology and Dispute (2009) |
| | “A seamless ODR system will offer great accessibility and convenience to the user. A most user-friendly system will likely allow information entered in one phase to be ported over to the next stage of the ODR system, reducing the need for the user to repeatedly provide. However, the accessibility principle is constrained by the need to ensure the confidentiality and inadmissibility of information and communications in the negotiation and mediation stages.” p.10 | Ethical Concerns in court-connected online dispute resolution – Quek Anderson (2019) |
| Accountability | “The development and implementation of ODR systems, processes and practices are accountable to the institutions, legal frameworks and communities that they serve” p.25 | Ethical Principles for Online Dispute Resolution – Wing (2016) |
| | “expectation that one may be called on to justify one's beliefs, feelings, and actions to others” p.640 | Building the virtual courthouse: ethical considerations for design, implementation, and regulation in the world of ODR – Shackelford and Raymond (2014) |
| | “Accountability concerns have led to calls for ODR systems to be able to explain the role played by algorithms in reaching a decision.” p.7 | Ethical Concerns in court-connected online dispute resolution – Quek Anderson (2019) |
| Anonymization | Operation to replace the names of private persons with Mr. X and Mrs. Y without making other changes to the decisions. p.89 | The ethics of predictive justice – Larret-Chahine (2018) |
| Autonomy | “Value-laden decisions made by algorithms can also pose a threat to the autonomy of data subjects. The reviewed literature in particular connects personalisation algorithms to these threats. Personalisation can be defined as the construction of choice architectures which are not the same across a sample (Tene and Polonetsky, 2013a). Similar to explicitly persuasive technologies, algorithms can nudge the behaviour of data subjects and human decision-makers by filtering information (Ananny, 2016). Different content, information, prices, etc. are offered to groups | The ethics of algorithms: mapping the debate – Mittelstadt, Allo, Taddeo, Wachter and Floridi (2016) |

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| | or classes of people within a population according to a particular attribute, e.g. the ability to pay” p.9 | |
| Clarity | “When a judicial or administrative decision is influenced or conditioned by an algorithm, this should be said, and the purpose should be explained. Citizens and litigants who are subject to algorithmic processing have the right to be informed, and above all to be explained, in clear and precise terms, what data is used and in pursuit of what purpose.” p.17 | Legal AI – Sfadj (2017) |
| Communication / counseling | “The communication and counseling function within the ethics of dispute resolution is complicated because of the need to fully explain different process choices and their possible consequences (especially in the context of pre-dispute counseling and contract drafting, as well as in post-hoc (dispute has “ripened”) decisions) about whether to pursue litigation or some other form of dispute resolution like arbitration, mediation, or some other hybrid dispute resolution process, like med-arb, summary jury trial, or a private ‘mini-trial.’”p.967 | Ethics Issues in Arbitration and Related Dispute Resolution Processes: What’s Happening And What’s Not – Menkel-Meadow (2001) |
| Competence | “Standard of Competence, states that a mediator shall mediate when she has the “necessary competence to satisfy the reasonable expectations of the parties.” [...] A continuing obligation exists for mediators to maintain and enhance their competence. Competence, therefore, applies to two perspectives: first, a mediator must be competent before beginning to mediate; and second, a mediator has a continuing obligation to maintain and enhance her skills through educational programs.” p.625 | Ethic and online dispute resolution : from evolution to revolution – Nauss Exon (2016) |
| | “ODR systems, processes and practitioners will be competent in or provide access to relevant technological or human competency required for the effective implementation of the dispute resolution process that they undertake to assist with.” p.25 | Ethical Principles for Online Dispute Resolution – Wing (2016) |
| | “Competence, as it relates to ODR, includes both the ability to manage the technology, and knowledge sufficient to advise the parties about the risks involved in using the technology” p.4 | Mediator Ethics and the Fourth Party – Rainey (2014) |
| | “Competence in an era of AI should require a lawyer to either be involved in the design of the AI systems they are using, or at the very least, to understand (with the help of an expert, if needed) certain underlying characteristics that affect the AI’s bias (including that of the design, designer, and data), its limits (including the limits of observational data and exclusion of information which has not been “ <i>datafied</i> ”), and its confidentiality concerns.” p.198 | Ethical Issues in Robo-Lawyering: The Need for Guidance on Developing and Using Artificial Intelligence in the Practice of Law – Simshaw (2018) |
| Competence / credentialing | “Many modern codes of conduct or procedural rules for arbitrators suggest at least some minimal levels of performance, framed in such terms as “diligence” or timely performance of duties, or more recently, the writing of reasoned opinions with awards. Because arbitrators often enjoy a “quasi-judicial immunity” for performing judicial-like services, their conduct is virtually never reviewed in a legally filed malpractice action.” p.963 | Ethics Issues in Arbitration and Related Dispute Resolution Processes: What’s Happening And What’s Not – Menkel-Meadow (2001) |
| Confidentiality | “standard of confidentiality requires a mediator to “maintain the confidentiality of all information obtained by the mediator in mediation, unless otherwise agreed to by the parties or required by applicable law. Mediation confidentiality is important for a number of reasons. It promotes candor by the parties, encouraging them to communicate and exchange information for settlement purposes[...] confidentiality also helps prevent the use of mediation statements as admissions of liability or some other claim of weakness.” p.626 | Ethic and online dispute resolution : from evolution to revolution – Nauss Exon (2016) |
| | “The development and implementation of ODR systems, processes and practitioners maintain confidentiality in accordance with all legal obligations and in a manner that is consistent, in particular, with the principles of Legal Obligation, Informed Participation, Security and Transparency” p.25 | Ethical Principles for Online Dispute Resolution – Wing (2016) |
| | “The JAMS confidentiality standard states: It is crucial that the mediator and all parties have a clear understanding as to confidentiality before the mediation begins. Before a mediation session begins, a mediator should explain to all parties (a) any applicable laws, rules or agreements prohibiting disclosure in subsequent legal proceedings of offer and statements made and documents produced during the session, and (b) the mediator’s role in maintaining confidences within the mediation and as to third parties.” p.43 | Third-Party Ethics in the Age of the Fourth Party – Rainey (2014) |
| | “Technology facilitate the flow of information. That can create huge challenge in keeping dispute resolution processes confidential. [...] Traditional ADR ethics operate with near absolute confidentiality, which may prove shortsighted in the ODR context.” p.9 | Virtual Virtues: Ethical Considerations for an Online Dispute Resolution Practice – DeMars, Nauss Exon, Kovach and Rule (2010) |
| | “For many who choose to use arbitration, the advantages are not necessarily the oft cited claims of speed and lower cost (“efficiency”), but confidentiality. In major | Ethics Issues in Arbitration and Related |

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| | commercial cases, modern intellectual property and high technology cases, and in some more personal matters, like sexual harassment or discrimination, parties desire to resolve disputes without the larger public (including competitors and shareholders) learning about the details of a trade secret or a proposed business plan or a confidential personal fact.” p.962 | Dispute Resolution Processes: What’s Happening And What’s Not – Menkel-Meadow (2001) |
| | “Confidentiality in mediation is far more complex than the confidentiality rules of conventional representation. Mediators promise confidentiality, often through contract, which is protected in many states by law (including the Uniform Mediation Act), but the law’s reach into exceptions (reporting of physical abuse, legal violations, etc.) is less protected here and mediators (and ombuds and similar professionals) have been called to testify in a variety of court settings, despite assurances of confidentiality to the parties.” p.409 | The Evolving Complexity of Dispute Resolution Ethics – Menkel-Meadow (2017) |
| | “Both mediation and arbitration often involve sensitive information that should remain confidential. [...] As a rule, all parties contract for absolute confidentiality of the existence of mediation/arbitration, of disclosures made during the proceedings, and of the outcome/award itself.” p.274 | Emerging roles for third parties in cyberspace – de Laet (2001) |
| | “deals with the confidentiality of the proceedings and protecting the privacy of the parties. [...] The mediator is prohibited from transmitting to one party things told him by the other party, the online mediator is prohibited from transmitting to one party a message sent to him by the other party. Programs for online dispute resolution must provide safeguarding of confidentiality and data as required by legislation. The safeguarding of confidentiality becomes a more difficult mission due to the nature of the Internet, which enables easy access to information. However, when the information reaches the site, reasonable efforts will be made to protect access to the information and confidentiality.” p.533 | No more click? Click in here: e-Mediation in Divorce Disputes – the reality and the desirable – Lavi (2015) |
| | “The ODR administrator may wish to publish anonymized data or statistics on outcomes in ODR processes, in order to enable parties to assess its overall record, consistent with applicable principles of confidentiality.” p.2 | Technical Notes on Online Dispute Resolution – UNCITRAL (2017) |
| | “confidentiality relies on norms and law. [...] In ODR, there is a trend towards transparency although some information needs to be kept confidential” p.2 ; “Confidentiality is related to data protection.” p.6 | Developing regulatory standards for the concept of security in online dispute resolution systems – Abedi, Zeleznikow and Brien (2019) |
| | “Protecting confidentiality in an era of AI must go beyond merely ensuring security and must include competently understanding how AI systems work, communicating with clients (and former clients) to understand their expectations and preferences, and ensuring that the designers and managers of AI systems, including third parties, understand the critical importance of confidentiality.” p.200 | Ethical Issues in Robo-Lawyering: The Need for Guidance on Developing and Using Artificial Intelligence in the Practice of Law – Simshaw (2018) |
| Confidentiality / privacy | “Well-established commercial site, with a built-in incentive to maintain top security, encryption in both directions, and internal controls built on passwords and user rights. Knowing all of that, the parties would have been able to make an informed choice.” p.2 | Mediator Ethics and the Fourth Party – Rainey (2014) |
| Consistency | “Consistency across person means that individuals should feel they have been treated equally and have the same rights during the procedure. Consistency across time means that each time the procedure follows the same rules. It is the individual’s expectations that influence procedural fairness, not what they receive or what they experience in the process. [...] Findings indicated that consistency is more important than voice.” p.366. . “In ODR systems, to maintain consistency of rule, two requirements need to be considered: The existence of procedural guidelines (e.g., ODR providers could adopt rules and principles for their procedure from well-established ADR guidelines); and The existence of consistent and predictable outcomes, which also leads to trust.” p.390 | Universal Standards for the Concept of Fairness in Online Dispute Resolution in B2C E-Disputes – Abedi, Zeleznikow and Brien (2019) |
| Empowerment / Informed Participation | “The principles of empowerment and informed participation have also been at the heart of the criticism of how court-connected mediation has been conducted. Commentators have written about how court-connected mediation in the US frequently involved evaluative interventions, and reduced the parties’ autonomy and participation in what is meant to be a highly participative process. [...] “the reality of court-annexed mediation was very different than the promise for a context-specific tailored process that maximized party autonomy, participation and control” p.8 | Ethical Concerns in court-connected online dispute resolution – Quek Anderson (2019) |
| Equality | “ODR processes are designed and implemented in ways that treat all participants with respect and human dignity; that system design and processes enable silenced or marginalized voices to be heard and actively seek to ensure that privileges and disadvantages are not replicated in the experience of participation; that no | Ethical Principles for Online Dispute Resolution – Wing (2016) |

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| | participant is placed at a higher risk than others; and, therefore, that ODR processes are designed to respond effectively to the reality that some contexts may put some at more risk than others” p.26 | |
| Equal treatment | “Regarding the representativeness of the data sets used for learning, he attests that the sampling does not contain under-representation or over-representation [...] One of these measures is the implementation of a bias removal procedure. The purpose of this procedure is to correct biased results by hybridizing "learning systems with prescriptions that the machine would be forced to [follow]" to avoid perpetuating these biases. This "clearing" leads to "straightening the learning sample as practiced for a survey. It is about transforming the data (...) so that the sample does not reflect biases known to society or more generally to the field studied.” p.52 | How digital is transforming law and justice towards new uses and a disruption of decision-making – Godefroy, Lebaron and Lévy-Vehel (2019) |
| | “Providing equal opportunity for disputing parties to be heard and present their case and all related documents (e.g., parties should have the same language or be provided with a translator); and minimizing the power imbalance of disputing parties due to different technology skills (e.g., parties should have similar internet skills)” p.384. ; “the equal treatment element recognized in this research for procedural fairness in ODR has the same definition as the voice element for procedural fairness that has been discussed in previous studies.” p.385 | Universal Standards for the Concept of Fairness in Online Dispute Resolution in B2C E-Disputes – Abedi, Zeleznikow and Brien (2019) |
| | “is a core value in most legal systems. This norm posits that legal decisions should be based upon the law and the facts, but not upon a party’s socio-economic, political, racial, ethic, gender background or a variety of other individual characteristics that are illegal or inappropriate to consider. Defendants in the same circumstances should be treated the same under the law regardless of status.” p.11 | The Ethics of Artificial Intelligence in Law: Basic Questions – Surden (2020) |
| Expertise | “Advanced forms of ODR acquire knowledge from human experts to create the ODR platform. It follows that the information obtained and then utilised by the ODR platform needs to be accurate. The relevant expertise or information may differ between an ODR platform seeking to mimic ADR and one that is an online court.” p.10 | The Future of Dispute Resolution: online ADR and online courts – Legg (2016) |
| Fairness | “Fairness means that "ODR systems and providers must create a fair redress environment, unbiased toward any individual participant in the process. Software algorithms must similarly be designed to offer no systemic benefit to one party over another.” p.631 | Ethic and online dispute resolution : from evolution to revolution – Nauss Exon (2016) |
| | “ODR processes are designed and implemented to facilitate and uphold due process, without bias or benefits for or against individuals or groups, including those based on algorithms. They are responsive to and reflective of the communities and stakeholders they serve” p.26 | Ethical Principles for Online Dispute Resolution – Wing (2016) |
| | “Fairness includes several different aspects, with the foremost divide being that between distributive (or outcome) fairness, and procedural fairness.” p.152. Important factors that should be incorporated into <i>fair</i> negotiation support processes and tools : <ul style="list-style-type: none"> - Transparency : “For a negotiation to be fair, it is essential to be able to understand - and, if necessary, replicate - the process in which decisions are made.” p.153 - Highlighting and clarifying the shadow of the law : “Bargaining in the shadow of the law thus provides standards for adhering to legally just and fair norms. Providing disputants with advice about likely court outcomes by incorporating such advice in negotiation support systems can help support fairness in such systems.” p.153 - Limited discovery : “Even when the negotiation process is transparent, it can still be flawed if there is a failure to disclose vital information. Discovery processes increase settlements and decrease trials by organizing the voluntary exchange of information. This benefit is often lost in a negotiation, especially if important information is not disclosed, or even worse, hidden. Requiring specified aspects of disclosure in a negotiation might help enhance the fairness of the negotiation process.” p.153 | Fairness, Trust and Security in Online Dispute Resolution – Ebner and Zeleznikow (2015) |
| | “The component of fairness means that the online mediator must insure that the Internet environment, the proposed platform and the program used do not grant an advantage or preference to one party to the dispute over the other party and that equality exists as far as possible.” p.533 | No more click? Click in here: e-Mediation in Divorce Disputes – the reality and the desirable – Lavi (2015) |
| | “ODR systems and providers must create a fair redress environment, unbiased toward any individual participant in the process. Software algorithms must similarly be designed to offer no systemic benefit to one party over another.” p.3 | Online Dispute Resolution Standards of Practice – Advisory Committee of the National Centre for Technology and Dispute (2009) |
| | “Parties in ODR systems expect some level of fairness, such as informing them about their rights and that the information provided by the ODR system is correct | Universal standards for the concept of trust in |

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| | and trustable.” p.226 ; “an expectation of fairness is obtained by: confidentiality of personal data; integrity and honesty of neutrals such as mediators; the existence of biographies and identifying images which establish parties’ confidence and familiarity with each other and neutrals; consistency of outcomes; and simple and accessible redress procedures” p.233-234 | online dispute resolution systems in e-commerce disputes – Abedi, Zeleznikow and Bellucci (2019) |
| | “is the need for the process to be fair. In the judicial system this is referred to as natural justice or procedural fairness. It includes such matters as the need for notice of the existence of a dispute and its planned resolution, as well as a right to be heard, which can include being able to adduce evidence, challenge evidence and make submissions.” p.13 | The Future of Dispute Resolution: online ADR and online courts – Legg (2016) |
| | “It states that parties must be aware that they have the right to withdraw at any stage of the procedure and the choice as to whether or not to agree to a suggested solution. It also states that parties should be allowed a reasonable period of time to consider the solution before an agreement is executed. This approach may not be the most desirable one since it is often the momentum of the mediation that helps the parties reach a compromise.” p.230 | Accredited online dispute resolution services: creating European legal standards for ensuring faire and effective processes – Cortés (2008) |
| | “The value of fairness is reflected in the accuracy model of procedural justice in that the pursuit of accuracy presumes the rights of people to resolve their disputes accurately. Because the participation model of procedural justice relates to the human dignity that justifies participation in the dispute resolution, the participation model also suggests the value of fairness. [...] The UNCITRAL Law of 1985 mandates that parties have the right to be treated equally, the right to the full opportunity to present a case, the right to present all possible relevant evidence, the right to be given sufficient advance notice, the right to full and equal access to case information, and the right to be protected under international public policy.” p.56-57 | International Commercial Online Dispute Resolution: just procedure through the internet – Soo Hye Cho (2009) |
| | “perceptions of fairness have been shown to be enhanced when the disputant has a “voice” or the opportunity to present his or her story and has been listened to and understood, and when the party has been treated with respect and dignity.” p.7 | Ethical Concerns in court-connected online dispute resolution – Quek Anderson (2019) |
| Impartiality | “Standard of Impartiality, requires a mediator to act without "favoritism, bias or prejudice," avoiding even the appearance of partiality. Additional comments instruct a mediator to maintain impartiality in respect to the participants' "personal characteristics, background, values and beliefs, or performance at a mediation, or any other reason." Impartiality applies to all conduct at mediation, including both verbal and nonverbal communication. Thus, a mediator should approach all parties with equal respect, openness, and curiosity, carefully considering the manner in which questions are phrased and positions and interests are summarized or reframed. A mediator should remain impartial to the information she receives from the parties. Impartiality also applies to other aspects of mediation, such as the use and arrangement of furniture, seating assignments, and methods to greet participants as they arrive at mediation.” p.624 | Ethic and online dispute resolution : from evolution to revolution – Nauss Exon (2016) |
| | “ODR processes are designed and implemented, and practitioners function with commitment to reducing bias in the delivery of the process. This includes accounting for technological and other conditions that could structure patterns of privilege in process and outcome for repeat players with particular attention to the principles of Accessibility, Fairness and Transparency” p.26 | Ethical Principles for Online Dispute Resolution – Wing (2016) |
| | “it is not only impossible but also potentially delegitimizing for our field to use it as a means of representing our work. [...]Every set of mediation standards of conduct we reviewed [...] require mediator impartiality.” p.7 | Virtual Virtues: Ethical Considerations for an Online Dispute Resolution Practice – DeMars, Nauss Exon, Kovach and Rule (2010) |
| | “The ethical standard for judicial impartiality is not determined in relation to community standards on morality, but rather mirrors the test for a reasonable apprehension of bias under which a decision of the court may be challenged.” p.637 | Judicial Ethics in a Digital Age – Sossin and Bacal (2013) |
| | “The conditions for a successful ODR system may be expressed in the affirmative as providing the user with trust and confidence by being impartial. Put in the negative, it must be unbiased [...] requiring judges to be impartial, to sit in public, to give reasons and be subject to appeal. For ODR the operation of the platform needs similar protections suitable for its context – “technology is by no means neutral and a particular software design reflects a preference for certain values over others”.” p.12 | The Future of Dispute Resolution: online ADR and online courts – Legg (2016) |
| | “It requires mediators not to have a conflict of interest with either party. This principle is complemented with the principle of transparency since impartiality can only be assured by requiring mediators to disclose the relevant information that | Accredited online dispute resolution services: creating |

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| | may affect their independence or impartiality. Also parties must be allowed to recuse mediators if there is (or if it is perceived that there is) a conflict of interest. This would be compatible with the immunity of mediators, which should be considered separately from the immunity of arbitrators.” p.230 | European legal standards for ensuring faire and effective processes – Cortés (2008) |
| Impartiality / Neutrality | “The component of neutrality and impartiality indeed exists in traditional mediation. However, in the online process, its uniqueness is expressed in that this component is required not only with respect to the mediator, but also with respect to the service provider who employs him.” p.533 | No more click? Click in here: e-Mediation in Divorce Disputes – the reality and the desirable – Lavi (2015) |
| | “the principle of impartiality or neutrality has been discussed in relation to the use of ODR platforms that are controlled or owned by one disputing party, thus causing perceptions about conflict of interest, as well as the design of systems that do not perpetuate existing biases existing in the training data. Mediators who utilize ODR platforms have to be sensitive to the potential perceptions of bias towards parties who are more adept in using technology” p.6 | Ethical Concerns in court-connected online dispute resolution – Quek Anderson (2019) |
| Independence / impartiality | “operating independently from business and government interest and without bias favoring those interests” p.518 | Technology, ethics, and access to justice: should an algorithm be deciding your case? – Raymond and Shackelford (2013) |
| Justice | “the concept of justice through the lens of our legal system: justice is the establishment or determination of rights according to the rules of law or equity” p.3966. | An architecture and issues for Online Dispute Resolution with Fairness and Justice – Xu, Zhang, Zhao and Gao (2008) |
| Moral responsibility | “When a technology fails, blame and sanctions must be apportioned. One or more of the technology’s designer (or developer), manufacturer or user are typically held accountable. Designers and users of algorithms are typically blamed when problems arise (Kraemer et al., 2011). Blame can only be justifiably attributed when the actor has some degree of control (Matthias, 2004) and intentionality in carrying out the action.” p.10 | The ethics of algorithms: mapping the debate – Mittelstadt, Allo, Taddeo, Wachter and Floridi (2016) |
| Neutrality | “Experts in cyber justice, digital law and e-commerce law say that technology is fundamentally not neutral; it will have sometimes voluntary consequences, other times involuntary. It can therefore be said that a strictly ethical approach to AI seems insufficient due to the very fluid nature of ethics and its absence of sanctions.” p.62 | Online settlement of cyber-consumption disputes in Quebec: literature review and food for thought for improving access to justice for consumers – Ayeva (2019) |
| | “ODR systems and practitioners function with independence from the disputing parties, and any conflicts of interest are made transparent.” p.27 | Ethical Principles for Online Dispute Resolution – Wing (2016) |
| | “the absence of distortions or manipulation of the information on which the algorithms feed” p.5 | The role of ethics in establishing certification for the use of algorithms in the legal system – Guiraud (2019) |
| | “Neutrality is an important factor in ODR systems, especially as ODR takes place in an online space, as it is difficult for parties to trust neutrals due to the absence of face-to-face interaction. Additionally, disputing parties are influenced by judgments made by neutrals and decisionmakers, so it is important to be skilled and trusted. Therefore, to establish neutrality of procedural fairness in ODR, the following two issues need to be addressed: Neutrals and decisionmakers should be impartial and independent; and Training courses and special qualifications for online neutrals and decisionmakers (e.g., providing a mediator or arbitrator with offline experience as well as online experience to learn independence in online resolution cases).” p.387 | Universal Standards for the Concept of Fairness in Online Dispute Resolution in B2C E-Disputes – Abedi, Zeleznikow and Brien (2019) |
| Participation | “ICODR should take the value of participation into account, because it is a private industry that services consumers. Parties’ participation increases the effectiveness of ICODR as shown in the psychological experiments. A group of procedural fairness studies have proven that parties respect the procedure and outcome when they feel that it is fair, and people tend to feel satisfaction when they are given the opportunity to participate. Participation is also considered significant from the Kantian perspective, because it may be an expression of human dignity and | International Commercial Online Dispute Resolution: just procedure through the internet – Soo Hye Cho (2009) |

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| | autonomous choice. Negotiation theories also support this principle of participation, because satisfaction can be the motivating source of voluntary participation in negotiation. [...] UNCITRAL Law of 1985 recognizes the right to participate, the right to be given sufficient advance notice, and the right to access case information fully and equally” p.61-62 | |
| | “In the development and implementation of ODR systems and processes active effort is made to ensure (1) explicit disclosure to participants of all information about risks and benefits of the process, (2) the competency of participants to evaluate the information about participation in the process, (3) understanding by participants of the information, (4) whenever possible, the voluntary acceptance by the participants of the risks of participating; and whenever voluntary consent is not possible due to the mandatory nature of participation than that is made transparent.” p.26 | Ethical Principles for Online Dispute Resolution – Wing (2016) |
| Privacy | “The right of data subjects to “shield personal data from third parties.” Informational privacy concerns the capacity of an individual to control information about herself (Van Wel and Royackers, 2004), and the effort required by third parties to obtain this information” p.9-10 | The ethics of algorithms: mapping the debate – Mittelstadt, Allo, Taddeo, Wachter and Floridi (2016) |
| | “privacy concentrates on personal data protection. [...] the privacy of personal information which is in contrast to transparency, could be performed by publishing only the general procedure of ODR and removing details of the identity of the parties.” p.6 | Developing regulatory standards for the concept of security in online dispute resolution systems – Abedi, Zeleznikow and Brien (2019) |
| Quality / safety | “with regard to the processing of judicial decisions and data, use certified sources and intangible data with models elaborated in a multi-disciplinary manner, in a secure technological environment.” p.7 | European ethical Charter on the use of Artificial Intelligence in judicial systems and their environment – CEPEJ (2019) |
| Respect | “People’s feeling of respect for their legal institutions, and the related legitimacy and authority they enjoy, are partly a function of their architecture.” p.311 | CyberJustice and Ethical Perspectives of Procedural Law – Weinstock (2016) |
| | “This means ODR providers should behave respectfully to parties, because when individuals receive respectful behaviour from decisionmakers and neutrals in ODR, it enhances their satisfaction with the fairness of the procedure. Findings in this research identified three components of the respect element: Providing an opportunity for disputing parties to have control over the process and their outcomes (e.g., they can propose solutions where their rights are protected); Dignity for and equitable treatment of disputing parties regardless of the value of the purchase or the social status of the parties; and The proceedings should not be delayed without a reasonable cause.” p.385 | Universal Standards for the Concept of Fairness in Online Dispute Resolution in B2C E-Disputes – Abedi, Zeleznikow and Brien (2019) |
| | “ensure that the design and implementation of artificial intelligence tools and services are compatible with fundamental right.” p.7 | European ethical Charter on the use of Artificial Intelligence in judicial systems and their environment – CEPEJ (2019) |
| Responsibility | “the principle of responsibility should impose for each algorithm the designation of a referent person, like what is done in the press, where the director of the publication is responsible for the content that he publishes.” p.17 | Legal AI – Sfadj (2017) |
| | “When a technology fails, blame and sanctions must be apportioned. One or more of the technology’s designer (or developer), manufacturer or user are typically held accountable. Designers and users of algorithms are typically blamed when problems arise (Kraemer et al., 2011). Blame can only be justifiably attributed when the actor has some degree of control (Matthias, 2004) and intentionality in carrying out the action.” p.10 | The ethics of algorithms: mapping the debate – Mittelstadt, Allo, Taddeo, Wachter and Floridi (2016) |
| Transparency | “The issue of transparency of algorithms is a thorny one. Building an algorithm requires bringing together a team of talents, and making them work together for several months, and even several years. [...] However, they still maintain control over the data they have in their possession, preserving a competitive advantage that cannot be offset.” p.87-88 | The ethics of predictive justice – Larret-Chahine (2018) |
| | “It must make clear what dispute resolution process is being used. Clarity of identities must be present. For example, ODR schemes must clearly identify ODR providers and affiliations, “identities and affiliations of the interveners and managers of the ODR systems, and the security efforts undertaken by the ODR | Ethic and online dispute resolution : from evolution to revolution – Nauss Exon (2016) |

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| | <p>provider to safeguard user data and identity." ODR service providers should identify their physical location and contact information. Finally, parties should have the right to representation and should disclose that representation to others involved in the ODR process." p.630-631</p> | |
| | <p>"the transparency requirement has technical (black box code) and economic (protection of trade secrets) limits. To mitigate these limitations, the internal structure of the algorithm is not revealed to the public. However, the reliability of MAAD (Algorithmic Modes of Decision Analysis) depends on both the quality of the incoming data and the machine learning technique used. This is why the MAAD designer writes a document describing the type of programming chosen, demonstrating the representativeness of the data, the objectivity of the selection and labeling of the data sets, etc." p.51</p> | <p>How digital is transforming law and justice towards new uses and a disruption of decision-making – Godefroy, Lebaron and Lévy-Vehel (2019)</p> |
| | <p>"All reasonable efforts are taken to make transparent the true purposes, risks and legal obligations inclusive of but not limited to: the form and legal jurisdiction of dispute resolution processes; the identities, affiliations, obligations and conflicts of interest of the parties, entities and systems; and the data security, confidentiality and privacy policies and systems involved." p.27</p> | <p>Ethical Principles for Online Dispute Resolution – Wing (2016)</p> |
| | <p>"With transparency comes greater public interest in and awareness of the judicial process" p.656</p> | <p>Judicial Ethics in a Digital Age – Sossin and Bacal (2013)</p> |
| | <p>"readily-accessible information about all aspects of their [ODR] services" p.517-518</p> | <p>Technology, ethics, and access to justice: should an algorithm be deciding your case? – Raymond and Shackelford (2013)</p> |
| | <p>"the lack of transparency in many ODR decisions means that precedent will not function in the same way that it does in regular trial courts; they will instead resemble small claims courts in which a transcript is often never kept." p.644</p> | <p>Building the virtual courthouse: ethical considerations for design, implementation, and regulation in the world of ODR – Shackelford and Raymond (2014)</p> |
| | <p>"This was firstly reflected in the policies for opening up public data, and in the requirements for transparency of decisions based on algorithms." p.526 ; "The principle of transparency of algorithms must therefore be applied to all operational or intermediate data (and no longer only descriptive) which underlie these algorithms." p.536</p> | <p>Transparency of algorithms in the face of Open Data: what status for learning data? – Bourcier and De Filippi (2018)</p> |
| | <p>"The fact of making algorithmic decision-making more transparent is explained by the need, for the persons concerned, to have the possibility of understanding the operation of the algorithm so as to be able, if necessary, to be able to challenge the decision. But very often, this will collide with "proprietary interests" p.6</p> | <p>The role of ethics in establishing certification for the use of algorithms in the legal system – Guiraud (2019)</p> |
| | <p>"Transparency relates to the quantity of the information provided to the parties in relation to the process' procedures and its quality." p.521 ; "In the component of transparency, the intent is that the programs for online dispute resolution must explain the process and its goals, must expose the identity and affiliations of service providers and mediators, as well as the means taken in order to protect the identities of the consumers of the service and the information provided by them." p.532</p> | <p>No more click? Click in here: e-Mediation in Divorce Disputes – the reality and the desirable – Lavi (2015)</p> |
| | <p>"ODR schemes must make clear the process used in pursuit of dispute resolution or management. Further, ODR schemes must be transparent in terms of the identities and affiliations of the ODR providers, the identities and affiliations of the interveners and managers of the ODR systems, and the security efforts undertaken by the ODR provider to safeguard user data and identity. [...] Parties must always retain their right to be represented or assisted by a third party at all stages of the procedure. However, whenever parties are legally represented they may be asked to disclose their representation." p.2-3</p> | <p>Online Dispute Resolution Standards of Practice – Advisory Committee of the National Centre for Technology and Dispute (2009)</p> |
| | <p>"It is desirable to disclose any relationship between the ODR administrator and a particular vendor, so that users of the service are informed of potential conflicts of interest. The ODR administrator may wish to publish anonymized data or statistics on outcomes in ODR processes, in order to enable parties to assess its overall record, consistent with applicable principles of confidentiality. All relevant information should be available on the ODR administrator's website in a user-friendly and accessible manner." p.2</p> | <p>Technical Notes on Online Dispute Resolution – UNCITRAL (2017)</p> |

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| | <p>“The law traditionally places great importance on transparency in the workings of government and—in particular—in the administration of the justice system. Development processes and methodologies can be opaque, and jurisdictions do not always provide access to data that allows for oversight of technology-enabled decisions. For this reason, we are building a database of the most common risk assessment tools used in the United States, to illuminate the methodologies and limitations of such tools.” p.2</p> | Ethics and Governance of Artificial Intelligence Initiative – Berkman Klein Center (2017) |
| | <p>“It sets forth the information that parties have to be aware of when participating in arbitration (i.e., procedural and substantive provisions). At present, it is difficult to obtain accurate information about ODR providers. Although, most providers disclose information on the services they offer, insufficient information is given on their governing structure, funding models, fees, officials, shareholders, users and results. Accredited ODR providers should increase accountability and trust by disclosing this information, particularly when allowing private (for-profit) entities to carry out the arbitration processes.” p.229</p> | Accredited online dispute resolution services: creating European legal standards for ensuring faire and effective processes – Cortés (2008) |
| | <p>“It states that consumers must be informed in simple terms about the mediation process. Essential information would be the cost of the online mediation, including the time involved and the status of the settlement. It also recommends the publication of the performance of the mediation process, such as the number of agreed settlements, average time, compliance records and so on. However, generally, given the confidential nature of most of these processes, ODR providers are reluctant to share these details, especially if this data may not be a positive publicity.” p.230</p> | dispute resolution services: creating European legal standards for ensuring faire and effective processes – Cortés (2008) |
| | <p>“The predictions rendered by many AI systems should be transparent. Most AI systems are deterministic systems, which means that the outputs that they produce are entirely based upon the input data that goes in and the software and AI model that is used. [...] If we want to query why an AI system came to a particular prediction about a particular defendant, we should be able to determine exactly what happened by examining the input information about the defendant that went in, the AI model itself and how the AI model treated that information, and be able to reconstruct the computational process that led to the results.” p.16</p> | The Ethics of Artificial Intelligence in Law: Basic Questions – Surden (2020) |
| Transparency / impartiality / intellectual integrity | <p>“make data processing methods accessible and understandable, authorise external audits.” p.7</p> | European ethical Charter on the use of Artificial Intelligence in judicial systems and their environment – CEPEJ (2019) |
| Trust | <p>“The justice and equity of a system are among the factors that help to inspire trust. Moreover, no one would want a system of justice that did not deserve to be trusted, in other words, one that did not provide justice to those who use it. However, trust is not related only to the effects produced by a social system, but to other types of factors as well.” p.308</p> | CyberJustice and Ethical Perspectives of Procedural Law – Weinstock (2016) |
| | <p>Usages of the term “trust” as it relates to ODR:</p> <ul style="list-style-type: none"> - Trust provider/facilitator : “Incorporating ODR into systems such as e-commerce is one measure expected to raise consumers’ level of trust in the system. Continuing development of the Internet, from a financial perspective, has always depended on the success of e-commerce, which is, in turn, absolutely dependent on trust.” p.155 - User’s trust : “ODR must be marketed, and its technology must be constructed, in such a way that the public will trust it as an efficient and effective way of managing their disputes.” p.155 - Interpersonal trust : “Parties utilizing the ODR experience not only levels of distrust inherent in most conflict situations; they are also hindered by challenges to trust between parties, and trust between parties and their neutral, which are triggered by the nature of online communication and of the online environment” p.156 - Trust in content offered by the system : “a powerful connection between users’ trust in the content, and the degree to which the system is perceived as “fair” exists, demonstrating the need for close examination of these concepts and the ways they interact in ODR systems.” p.156 | Fairness, Trust and Security in Online Dispute Resolution – Ebner and Zeleznikov (2015) |
| | <p>“It would offer some guarantee to users that the intermediaries involved, whether mediators or arbitrators, and the procedures they employ, are up to certain standards. [...] The whole procedure needs to be handled with precision and care, in order to guarantee the enforceability of an award in court” p.274</p> | Emerging roles for third parties in cyberspace – de Laet (2001) |
| | <p>“Trust in IT relies on infrastructure systems such as the web or on specific information systems like Microsoft Excel. The concept of trust is ‘a secure willingness to depend on a trustee because of that trustee’s perceived characteristics’” p.214</p> | Universal standards for the concept of trust in online dispute resolution systems in e-commerce disputes – |

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| | | Abedi, Zeleznikow and Bellucci (2019) |
| | “Trust has to be established on many fronts: trust that the ODR technology will not fail; trust that the system will be competent and capable of resolving the dispute; confidence that the system is user-friendly; and trust that the process will not involve unanticipated time and costs.” p.17 | Ethical Concerns in court-connected online dispute resolution – Quek Anderson (2019) |

III. 2 Uncertainties about ethical biases

While biases due to AI use are considered to be a major ethical issue, our scoping review shows that there remain several uncertainties about ethical biases.

First, several researchers argue that reaching a clear understanding of biases requires identifying there source, which can be found in the design of algorithms (Mittelstadt et al. 2016), in the data that feed the algorithms (Ebner 2012), or in the outcomes, i.e., the output of algorithms (Godefroy et al. 2019).

Researchers also argue that there exist different types of biases, for example learning biases (Godefroy et al. 2019), hidden biases (Larret-Chahine 2018), unknown biases (Martinay and Mazens 2017), conscious biases (Mittelstadt et al. 2016), unconscious biases (Simshaw 2018), intentional biases (Mittelstadt et al. 2016), unintentional biases (Surden 2020) and emergent biases (Mittelstadt 2016).

As shown in Table 3, and although the sources of ethical biases as well as the different types of potential biases have been the subject of increasing research, the definitions of these biases remain unclear or absent. Moreover, few solutions have been proposed in order to deal with the different types of biases.

Table 2 – Different types of biases

| Types of biases | Citation | Article |
|------------------------|--|---|
| Biases outcomes | “Algorithms inevitably make biased decisions. An algorithm’s design and functionality reflects the values of its designer and intended uses, if only to the extent that a particular design is preferred as the best or most efficient option. Development is not a neutral, linear path; there is no objectively correct choice at any given stage of development, but many possible choices [...] It is difficult to detect latent bias in algorithms and the models they produce when encountered in isolation of the algorithm’s development history.” p.7 | The ethics of algorithms: mapping the debate – Mittelstadt, Allo, Taddeo, Wachter and Floridi (2016) |
| | “the potential for system design, or platform choice, to result in biased outcomes. I anticipate that as e-mediation develops and a keener sense for practice develops, opportunities for mediator | e-Mediation – Ebner (2012) |

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| | manipulation of parties will be noted as an area of importance for ethical discussion.” P.385. | |
| | “In terms of methods, designers must account for the validity of the data that feeds the algorithm, knowing that biases in the results are often due to certain biased data.” In terms of methods, designers must account for the validity of the data that feeds the algorithm, knowing that biases in the results are often due to certain biased data. With statistical or modeling algorithms that draw raw data, the biases come as much from a limited volume as too high from this data.” | How digital is transforming law and justice towards new uses and a disruption of decision-making – Godefroy, Lebaron and Lévy-Vehel (2019) |
| Learning biases | “The limited volume of data is not an obstacle to the reliability of the forecasts. However, their selection must be appropriate and their labeling adapted so that learning is not a source of bias tainting the model” p.48 | How digital is transforming law and justice towards new uses and a disruption of decision-making – Godefroy, Lebaron and Lévy-Vehel (2019) |
| | “By definition, algorithms for the statistical analysis of court decisions require massive amounts of data, in which biases can hide [...] the biases that learning data can involve [...] the software would reproduce racial prejudice, leading to more serious consideration of black prisoners.” p.89. | The ethics of predictive justice – Larret-Chahine (2018) |
| Human/personal biases | “machine learning technology reproduces human biases, for better and for worse [...] It would not also be excluded that biases are voluntarily introduced into algorithms, to favor one ideology rather than another, to guide decisions” p.8 | Insights into the “promises” of predictive justice – Martinay and Mazens (2017) |
| | “it recognizes personal biases of a mediator and that these biases should not cloud the decision whether or not to use ICT. It is important that when a mediator discusses use of an ODR/ICT platform, she does so in a neutral and impartial manner”p.635 | Ethic and online dispute resolution : from evolution to revolution – Nauss Exon (2016) |
| Inherent biases | “In the United States and elsewhere, historically-marginalized groups are often over-represented in incarcerated populations. Algorithmic systems trained on historical data must therefore confront inherent biases. Existing assessment tools approach the legacy of unequal outcomes in different ways. But little is known about the effectiveness of their methods, and there exists considerable debate about the extent to which these factors (and their proxies) can be isolated” p.2. | Ethics and Governance of Artificial Intelligence Initiative – Berkman Klein Center (2017) |
| Design biases | “Moreover, even the data that are available are often biased, or subject to the biases of the algorithms designed for certain types of practice or clients, in addition to the often unconscious biases of the algorithm designers themselves.”p.195 “The challenges resulting from a possible design bias favoring paying clients of AI services is compounded by inevitable underlying and often unconscious biases of the designers of AI, as well as underlying bias in the data that are fed into AI’s algorithms and the resulting disparate impact that manifests in legal systems” p.186 | Ethical Issues in Robo-Lawyering: The Need for Guidance on Developing and Using Artificial Intelligence in the Practice of Law – Simshaw (2018) |
| | “Some design biases might be largely unintentional, such as when software engineers make a choice based upon a personal judgment without realizing that such a choice happens to benefit people like themselves.” | The Ethics of Artificial Intelligence in Law: Basic Questions – Surden (2020) |

III.3 Different perspectives on ethics or ethical issues

As shown in Table 3, our review of the literature allowed us to identify three different perspectives on ethics: ethics as a process, ethics by design and ethics as a code of principles.

Ethics as a process

According to this perspective, ethics should be viewed as “as much a process of elaboration as the result of the process itself” (CNIL 2017). Ethical guidelines are “meant to be both enduring and evolving. The guidelines ought to be adaptable to developments in law, culture, and technology. Ethical principles are not and shall not be used as a code or a list of prohibited behaviours” (Sossin and Bacal 2013).

Ethics by design

As opposed to the first perspective describe above, this perspective considers that “the role of ethics for ODR developers will likely evolve as a set of ethical canons that tell developers and the applications they create how to behave” (Rainey 2015). Researchers adopting this perspective believe that “the ethical principles for Online Dispute Resolution (ODR) are designed to enhance the quality, effectiveness and scope of dispute resolution processes with technological components” (Wing 2016).

Ethics as a code of principles

According to this perspective, acting ethically “means conforming to a set of moral principles developed to protect an ideal perceived as universal” (Larret-Chahine 2018). Ethical principles should be embedded in rules “intended to "protect" the public and users of professional services” (Menkel-Meadow 2017).

Table 3 - Different perspectives on ethics

| Perspective on ethics | Definition | Article |
|------------------------------|---|---|
| Ethics as a process | “Standards which are not necessarily intended to enter the law and which relate to the conduct of individuals. A set of standards set by the company and that it imposes on itself. Ethics appears as a scout of the law, the ethical norm a foreshadowing of the legal norm.” | How can humans keep the upper hand? The ethical issues of algorithms and artificial intelligence – CNIL (2017) |
| | “Ethical guidelines in the context of Canadian judicial conduct are advisory in nature, and designed so that they may be adapted to various scenarios. Unlike fixed and precise rules, the guidelines are meant to be both enduring and evolving. The guidelines ought to be adaptable to developments in law, culture, and technology. Ethical principles are not and shall not be used as a code or a list of prohibited behaviours.” | Judicial Ethics in a Digital Age – Sossin and Bacal (2013) |

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| | “Ethics allows upstream work to identify risks and anticipate changes. Ethics can help prepare the ground for necessary laws and avoid unnecessary artificial intelligence laws.” | The digital transformation seized by lawyers, the story of an opportunity to be mastered – Mossé (2018) |
| | “The central ethical challenge is to identify the way in which the use of AI may be shifting core legal values, and to ensure that these crucial values are preserved in the technological transition.” p.21. | The Ethics of Artificial Intelligence in Law: Basic Questions – Surden (2020) |
| Ethics by design | “The traditional role of ethics in dispute resolution has been to tell third parties how to behave; the role of ethics for ODR developers will likely evolve as a set of ethical canons that tell developers and the applications they create how to behave” p.21. | Glimmers on the Horizon: Unique Ethical Issues created by ODR – Rainey (2015) |
| | The Ethical Principles for Online Dispute Resolution (ODR) are designed to enhance the quality, effectiveness and scope of dispute resolution processes with technological components. | Ethical Principles for Online Dispute Resolution – Wing (2016) |
| | “The ethics of ODR platforms and artificial intelligence come into play in three ways within the current discussion. In general, they therefore see ethics directly integrated into the design of these tools and platforms” P.632-633. | Building the virtual courthouse: ethical considerations for design, implementation, and regulation in the world of ODR – Shackelford and Raymond (2014) |
| Ethics as a code of principles | “Acting ethically means conforming to a set of moral principles developed to protect an ideal perceived as universal.” p.86. | The ethics of predictive justice – Larret-Chahine (2018) |
| | “the Model Standards are the principal set of standards for mediators; their stated purpose is to "guide the conduct of mediators; to inform the mediating parties; and to promote public confidence in mediation as a process for resolving disputes.”” P.623 | Ethic and online dispute resolution: from evolution to revolution – Nauss Exon (2016) |
| | “Ethics refers to an evaluation of individual behavior faced with collectively accepted fundamental values.” P.46. | How digital is transforming law and justice towards new uses and a disruption of decision-making – Godefroy, Lebaron and Lévy-Vehel (2019) |
| | “Ethical rules are intended to "protect" the public and users of professional services” p.394 | The Evolving Complexity of Dispute Resolution Ethics – Menkel-Meadow (2017) |
| | “Ethical standards: Each of the professional computing societies has its own code of conduct, which is available on its website. Students taking courses at universities must often complete professional ethics courses to both obtain their degree and to be accepted into professional bodies” p.11 | No Sheriff in Town: Governance for the ODR field – Ebner and Zeleznikow (2016) |
| | “A problem is ethical when it "involves ideals that give meaning to our life or rules that we feel obliged to respect.[...] We are touching the sphere of moral values and principles.“ p.2. | The role of ethics in establishing certification for the use of algorithms in the legal system – Guiraud (2019) |
| | “A code of ethics in order to guide neutrals as to conflicts of interest and other rules of conduct.” p.2. | Technical Notes on Online Dispute Resolution – UNCITRAL (2017) |
| | “Importance of a code of ethics in ODR systems is that its existence will help individuals feel confident and trust that the neutrals and decision makers are working professionally without any biased behaviour.” p.234. | Universal standards for the concept of trust in online dispute resolution systems in e-commerce disputes – Abedi, Zeleznikow and Bellucci (2019) |

IV. Conclusion

Research on ethical issues related to the implementation and use of AI in the justice system is gaining increasing research attention but remains fragmented in its approach of the topic. The

objective of this paper was to perform a scoping review in order to better understand the nature of these issues, and to draw a global portrait in order to identify gaps and guide future research.

The study's results allowed us to make three main observations. First, we observed a lack of definitional clarity among the concepts used in the studies identified in the review. This lack of definitional clarity creates significant conceptual confusion and hinders systematic accumulation of knowledge on the topic. Second, our review showed that AI Biases remained unclear or unknown which also limits the development of proper mitigating actions and systematic solutions for addressing them. Third, our review showed a lack of valid and reliable measures of ethical concepts. This issue is probably accentuated the lack of definitional clarity/conceptual overlap observed herein as the operational referent of the ethical concepts appears to be disconnected from their definition (Bacharach 1989) which ultimately affects their overall reliability and validity.

Based on above observations, it appears clearly that there is a need for more rigorous conceptual studies in order to improve definitional clarity and advance sound conceptual frameworks to be tested empirically. There is also a need for systematic developments of reliable measures of ethical concepts as a well as for the development of clear frameworks or tools/solutions to address the biases of AI tools used in the justice system.

V. References

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VI. Appendices

Table 4 - Ethical issues of AI with retrieval method details

| Article | Year | Publication | Retrieval method |
|---|------|--|---|
| CyberJustice and Ethical Perspectives of Procedural Law – Daniel Weinstock | 2016 | University of Ottawa Press | JSTOR – keywords: [cyberjustice ethical], 1-5 of 5 search results |
| The ethics of predictive justice – Louis Larret-Chahine | 2018 | Annales des mines | Google Scholar – keywords: [justice prédictive éthique], 1-10 of 6360 search results |
| Legal artificial intelligence: epistemic and ethical issues – Arnaud Billion and Mathieu Guillermin | 2019 | Cahiers Droit, Sciences & Technologies | Google Scholar – keywords: [justice prédictive éthique], 11-20 of 6360 search results |
| Insights into the “promises” of predictive justice – Auréa Martinay and Marie Mazens | 2017 | <i>University of Poitiers</i> | Google Scholar - keywords: [justice prédictive enjeux], 11-20 of 8200 search results |
| The digital transformation seized by lawyers, the story of an opportunity to be mastered – Marc Mossé | 2018 | Annales de mines | Google Scholar - keywords: [principe intelligence artificielle justice], 91-100 of 11800 search results |
| The Future Computed, Artificial Intelligence and its role in society - Microsoft | 2018 | Microsoft Corporation | Citation chaining |
| Ethics and online dispute resolution : from evolution to revolution – Susan Nauss Exon | 2016 | Ohio State Journal on Dispute Resolution | HeinOnline , keywords: [ethics online dispute resolution], 3 of 26045 search results |
| Online dispute resolution: challenges for contemporary justice – Gabrielle Kaufmann-Kohler and Thomas Schultz | 2004 | Kluwer Law International | Citation chaining |
| Online settlement of cyber-consumption disputes in Quebec: literature review and food for thought for improving access to justice for consumers – Malicka K. Ayeva | 2019 | University of Sherbrooke | Google Scholar - keywords: [éthique litiges en ligne], 1-10 of 11400 search results |
| How digital is transforming law and justice towards new uses and a disruption of decision-making – Lémy Godefroy, Frédéric Lebaron and Jacques Lévy-Vehel | 2019 | Mission de recherche Droit & Justice | Google Scholar - keywords: [principe intelligence artificielle justice], 51-60 of 16200 search results |
| Legal AI – Rubin Sfadj | 2017 | Expertises | Citation chaining |
| Ethical Principles for Online Dispute Resolution – Leah Wing | 2016 | International Journal on Online Dispute Resolution | SSRN , keywords: [ODR ethics], 1-9 of 9 search results |
| Fairness, Trust and Security in Online Dispute Resolution – Noam Ebner and John Zeleznikow | 2015 | Journal of Public Law & Policy | SSRN , keywords: [online dispute resolution fairness], 1-25 of 25 search results |
| Technology, ethics, and access to justice: should an algorithm be deciding your case? – Anjanette H. Raymond and Scott J. Shackelford | 2013 | Michigan Journal of International Law | SSRN , keywords: [ODR ethics], 1-9 of 9 search results |

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| Mediator Ethics and the Fourth Party – Daniel Rainey | 2014 | ACResolution Magazine | Citation chaining |
| Third-Party Ethics in the Age of the Fourth Party – Daniel Rainey | 2014 | International Journal of Online Dispute Resolution | HeinOnline , keywords: [ethics online dispute resolution], 2 of 26045 search results |
| Virtual Virtues: Ethical Considerations for an Online Dispute Resolution Practice – Jo DeMars, Susan Nauss Exon, Kimberlee K. Kovach and Colin Rule | 2010 | Dispute Resolution Magazine | HeinOnline , keywords: [ethics online dispute resolution], 22 of 26045 search results |
| Judicial Ethics in a Digital Age – Lorne Sossin and Meredith Bacal | 2013 | UBC Law Review | Zotero (<i>digital library on cyberjustice</i>), keywords: [ethics], 2-5 of 5 search results |
| Ethics Issues in Arbitration and Related Dispute Resolution Processes: What’s Happening And What’s Not – Carrie Menkel-Meadow | 2001 | University of Miami Law Review | Citation chaining |
| Building the virtual courthouse: ethical considerations for design, implementation, and regulation in the world of ODR – Scott J. Shackelford and Anjanette H. Raymond | 2014 | Wisconsin Law Review | SSRN , keywords: [ODR ethics], 1-9 of 9 search results |
| An architecture and issues for Online Dispute Resolution with Fairness and Justice – Zhengchuan Xu, Chenghong Zhang, Rong Zhao and Jianming Gao | 2008 | Chinese Control and Decision Conference (CCDC) | IEEE Xplore, keywords: [online dispute resolution], 1-23 of 23 search results |
| e-Mediation – Noam Ebner | 2012 | The Hague: Eleven International Publishing | SSRN , keywords: [ODR ethics], 1-9 of 9 search results |
| The Evolving Complexity of Dispute Resolution Ethics – Carrie Menkel-Meadow | 2017 | The Georgetown Journal of Legal Ethics | HeinOnline , keywords: [ethics online dispute resolution], 12 of 26045 search results |
| No Sheriff in Town: Governance for the ODR field – Noam Ebner and John Zeleznikow | 2016 | Negotiation Journal | SSRN, keywords: [ODR ethics], 1-9 of 9 search results |
| Transparency of algorithms in the face of Open Data: what status for learning data? – Danièle Bourcier and Primavera De Filippi | 2018 | Revue française d’administration publique | CAIRN, keywords: [algorithmes transparence juridique], 1-25 of 1330 search results |
| Ethics Guidelines for Trustworthy Artificial Intelligence – High-Level Expert Group on AI | 2018 | European Commission | Citation chaining |
| Emerging roles for third parties in cyberspace – Paul B. de Laat | 2001 | Ethics and Information Technology | ABI/Inform Collection, keywords: [cyberjustice ethics], 1-2 of 2 search results |
| The role of ethics in establishing certification for the use of algorithms in the legal system – Emilie Guiraud | 2019 | Éthique publique | Google Scholar – keywords: [justice prédictive éthique], 1-10 of 6360 search results |
| Predictive justice – Aurore Hyde | 2019 | Sorbone Law School | Google Scholar – keywords: [justice prédictive éthique], 1-10 of 6360 search results |

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| Artificial Intelligence in the Context of Crime and Criminal Justice – Benoît Dupont, Yuan Stevens, Hannes Westermann and Michael Joyce. | 2018 | Korean Institute of Criminology | Cyberjustice.ca website |
| How can humans keep the upper hand? The ethical issues of algorithms and artificial intelligence – CNIL | 2017 | CNIL | Citation chaining |
| Glimmers on the Horizon: Unique Ethical Issues created by ODR – Daniel Rainey | 2015 | Dispute Resolution Magazine | HeinOnline , keywords: [ethics online dispute resolution], 5 of 26045 search results |
| The ethics of algorithms: mapping the debate – Brent Daniel Mittelstadt, Patrick Allo, Mariarosaria Taddeo, Sandra Wachter and Luciano Floridi | 2016 | Big Data & Society | SSRN , keywords: [e-mediation ethics], 1-50 of 151 search results |
| European ethical Charter on the use of Artificial Intelligence in judicial systems and their environment – CEPEJ | 2019 | Council of Europe | Citation chaining |
| Online Mediation : Where we have been, where we are now, and where we should be – Sarah Rudolph Cole and Kristen M. Blankley | 2006 | University of Toledo Law Review | HeinOnline , keywords: [ethics online dispute resolution], 13 of 26045 search results |
| No more click? Click in here: e-Mediation in Divorce Disputes – the reality and the desirable – Dafna Lavi | 2015 | Cardozo Journal of Conflict Resolution | Google Scholar – keywords: [emediation ethics], 1-10 of 661 search results |
| Online Dispute Resolution Standards of Practice - Advisory Committee of the National Centre for Technology and Dispute | 2009 | ICANN | Citation chaining |
| Technical Notes on Online Dispute Resolution – UNCITRAL | 2017 | United Nations Commission On International Trade Law | Citation chaining |
| Universal standards for the concept of trust in online dispute resolution systems in e-commerce disputes – Fahimeh Abedi, John Zeleznikow and Emilia Bellucci | 2019 | International Journal of Law and Information Technology | HeinOnline , keywords: [ethics online dispute resolution], 10 of 26045 search results |
| Developing regulatory standards for the concept of security in online dispute resolution systems – Fahimeh Abedi, John Zeleznikow and Chris Brien | 2019 | Computer Law & Security Review | ScienceDirect, keywords: [ODR justice ethical], 1-12 of 12 search results |
| Ethics and Governance of Artificial Intelligence Initiative – Berkman Klein Center | 2017 | / | Google.com – keywords: [ethics justice AI], 1-10 of 15,300,000 search results |
| The Future of Dispute Resolution: online ADR and online courts – Michael Legg | 2016 | Forthcoming– Australasian Dispute Resolution Journal | SSRN , keywords: [online dispute resolution justice], 1-50 of 96 search results |
| Accredited online dispute resolution services: creating European legal standards for ensuring fair and effective processes – Pablo Cortés | 2008 | Information & Communications Technology Law | Citation chaining |
| Universal Standards for the Concept of Fairness in Online Dispute Resolution in B2C E-Disputes – Fahimeh Abedi, John Zeleznikow and Chris Brien | 2019 | Ohio State Journal on Dispute Resolution | HeinOnline , keywords: [ethics online dispute resolution], 24 of 26045 search results |

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| International Commercial Online Dispute Resolution: just procedure through the internet – Soo Hye Cho | 2009 | / | Citation chaining |
| Ethical Concerns in court-connected online dispute resolution – Dorcas Quek Anderson | 2019 | International Journal of Online Dispute Resolution | SSRN , keywords: [ODR ethics], 1-9 of 9 search results |
| The Ethics of Artificial Intelligence in Law: Basic Questions – Harry Surden | 2020 | Oxford Handbook of Ethics of AI | SSRN , keywords: [AI justice ethics], 1-14 of 14 search results |
| Ethical Issues in Robo-Lawyering: The Need for Guidance on Developing and Using Artificial Intelligence in the Practice of Law – Drew Simshaw | 2018 | Hastings Law Journal | SSRN , keywords: [AI justice ethics], 1-14 of 14 search results |

Table 5 - Ethical issues identified in the literature

| Ethical issue | Number of articles | Codes | Definition | Article |
|---|--------------------|------------------------|---|---|
| <p>Fairness, justice, neutrality, bias, discrimination, equity, equal treatment, equality, consistency, access for all, choice</p> | <p>37/48</p> | <p>Fairness</p> | <p>“Fairness means that "ODR systems and providers must create a fair redress environment, unbiased toward any individual participant in the process. Software algorithms must similarly be designed to offer no systemic benefit to one party over another." p.631</p> | <p>Ethic and online dispute resolution : from evolution to revolution – Susan Nauss Exon (2016)</p> |
| | | | <p>“ODR processes are designed and implemented to facilitate and uphold due process, without bias or benefits for or against individuals or groups, including those based on algorithms. They are responsive to and reflective of the communities and stakeholders they serve” p.26.</p> | <p>Ethical Principles for Online Dispute Resolution – Leah Wing (2016)</p> |
| | | | <p>“Fairness includes several different aspects, with the foremost divide being that between distributive (or outcome) fairness, and procedural fairness.” P.152. Important factors that should be incorporated into <i>fair</i> negotiation support processes and tools :</p> <ul style="list-style-type: none"> - Transparency : “For a negotiation to be fair, it is essential to be able to understand - and, if necessary, replicate - the process in which decisions are made. In this way unfair negotiated decisions can be examined, and if necessary, be altered”. P.153 - Highlighting and clarifying the shadow of the law : “Bargaining in the shadow of the law thus provides standards for adhering to legally just and fair norms. Providing disputants with advice about likely court outcomes by incorporating such advice in negotiation support systems can help support fairness in such systems.” P.153. - Limited discovery : “Even when the | <p>Fairness, Trust and Security in Online Dispute Resolution – Noam Ebner and John Zeleznikow (2015)</p> |

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|--|--|--|---|--|
| | | | <p>negotiation process is transparent, it can still be flawed if there is a failure to disclose vital information. Discovery processes increase settlements and decrease trials by organizing the voluntary exchange of information. This benefit is often lost in a negotiation, especially if important information is not disclosed, or even worse, hidden. Requiring specified aspects of disclosure in a negotiation might help enhance the fairness of the negotiation process.” P.153.</p> | |
| | | | <p>“The component of fairness means that the online mediator must insure that the Internet environment, the proposed platform and the program used do not grant an advantage or preference to one party to the dispute over the other party and that equality exists as far as possible.” P.533.</p> | <p>No more click? Click in here: e-Mediation in Divorce Disputes – the reality and the desirable – Dafna Lavi (2015)</p> |
| | | | <p>“ODR systems and providers must create a fair redress environment, unbiased toward any individual participant in the process. Software algorithms must similarly be designed to offer no systemic benefit to one party over another.” P.3.</p> | <p>Online Dispute Resolution Standards of Practice - Advisory Committee of the National Centre for Technology and Dispute (2009)</p> |
| | | | <p>“Parties in ODR systems expect some level of fairness, such as informing them about their rights and that the information provided by the ODR system is correct and trustworthy.” p.226.; “an expectation of fairness is obtained by: confidentiality of personal data; integrity and honesty of neutrals such as mediators; the existence of biographies and identifying images which establish parties’ confidence and familiarity with each other and neutrals; consistency of outcomes; and simple and accessible redress procedures” p.233-234.</p> | <p>Universal standards for the concept of trust in online dispute resolution systems in e-commerce disputes – Fahimeh Abedi, John Zeleznikow and Emilia Bellucci (2019)</p> |
| | | | <p>“is the need for the process to be fair. In the judicial system this is referred to as natural justice or procedural fairness. It includes such matters as the need for notice</p> | <p>The Future of Dispute Resolution: online ADR and online courts –</p> |

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| | | <p>of the existence of a dispute and its planned resolution, as well as a right to be heard, which can include being able to adduce evidence, challenge evidence and make submissions.” P.13.</p> <p>“It states that parties must be aware that they have the right to withdraw at any stage of the procedure and the choice as to whether or not to agree to a suggested solution. It also states that parties should be allowed a reasonable period of time to consider the solution before an agreement is executed. This approach may not be the most desirable one since it is often the momentum of the mediation that helps the parties reach a compromise.” P.230</p> <p>“The value of fairness is reflected in the accuracy model of procedural justice in that the pursuit of accuracy presumes the rights of people to resolve their disputes accurately. Because the participation model of procedural justice relates to the human dignity that justifies participation in the dispute resolution, the participation model also suggests the value of fairness. The "Procedural Fairness Study" further demonstrates that fairness not only contributes to the reinforcement of procedural justice, but also encourages disputants to comply with the result of the proceeding. The UNCITRAL Law of 1985 mandates that parties have the right to be treated equally, the right to the full opportunity to present a case, the right to present all possible relevant evidence, the right to be given sufficient advance notice, the right to full and equal access to case information, and the right to be protected under international public policy.” P.56-57</p> <p>“perceptions of fairness have been shown to be enhanced when the disputant has a “voice” or the opportunity to present his or her story and has been listened to and understood, and when the party has been treated with respect and dignity.” p.7</p> | <p>Michael Legg (2016)</p> <p>Accredited online dispute resolution services: creating European legal standards for ensuring faire and effective processes – Pablo Cortés (2008)</p> <p>International Commercial Online Dispute Resolution: just procedure through the internet – Soo Hye Cho (2009)</p> <p>Ethical Concerns in court-connected online dispute resolution – Dorcas Quek Anderson (2019)</p> |
| | Equity | <p>“Equity is the value in the name of which cyberjustice proponents</p> | <p>CyberJustice and Ethical Perspectives</p> |

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|--|--|-------------|--|---|
| | | | consider that the administration of justice should give a greater role to virtual processes.” p.305 | of Procedural Law – Daniel Weinstock (2016) |
| | | Bias | “By definition, algorithms for the statistical analysis of court decisions require massive amounts of data, in which biases can hide. This software [...] restricts itself to the data that we give them and from which they feed. Their world is finished, it is that of the court decision, but this one is not free from bias, which are also sometimes oblivious.” p.89. | The ethics of predictive justice – Louis Larret-Chahine (2018) |
| | “Algorithms inevitably make biased decisions. An algorithm’s design and functionality reflects the values of its designer and intended uses, if only to the extent that a particular design is preferred as the best or most efficient option. Development is not a neutral, linear path; there is no objectively correct choice at any given stage of development, but many possible choices (Johnson, 2006). As a result, “the values of the author [of an algorithm], wittingly or not, are frozen into the code, effectively institutionalising those values” (Macnish, 2012: 158). It is difficult to detect latent bias in algorithms and the models they produce when encountered in isolation of the algorithm’s development history (Friedman and Nissenbaum, 1996; Hildebrandt, 2011; Morek, 2006).” p.7 | | The ethics of algorithms: mapping the debate – Brent Daniel Mittelstadt, Patrick Allo, Mariarosaria Taddeo, Sandra Wachter and Luciano Floridi (2016) | |
| | “In the United States and elsewhere, historically-marginalized groups are often over-represented in incarcerated populations. Algorithmic systems trained on historical data must therefore confront inherent biases. Existing assessment tools approach the legacy of unequal outcomes in different ways. But little is known about the effectiveness of their methods, and there exists considerable debate about the extent to which these factors (and their proxies) can be isolated” p.2. | | Ethics and Governance of Artificial Intelligence Initiative – Berkman Klein Center (2017) | |
| | “the potential for system design, or platform choice, to result in biased outcomes. I anticipate that as e-mediation develops and a keener sense for practice | | e-Mediation – Noam Ebner (2012) | |

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| | | | <p>develops, opportunities for mediator manipulation of parties will be noted as an area of importance for ethical discussion.” P.385.</p> | |
| | | | <p>“This would introduce an application bias with a standardization of penalties throughout the territory, "which would therefore not take into account regional disparities, cultural perceptions for example", according to Gérard LHORO. The latter also specifies that "there are already scales and classifications, in terms of compensatory benefits, damages or even standards for erasing criminal decisions from criminal records according to parameters applicable to all"” p.9</p> | <p>Insights into the “promises” of predictive justice – Auréa Martinay and Marie Mazens (2017)</p> |
| | | Discrimination | <p>“What the terms discrimination can be described instead as mere bias, or the consistent and repeated expression of a particular preference, belief or value in decisionmaking (Friedman and Nissenbaum, 1996). In contrast, what he describes as problematic effects of discriminatory treatment can be defined as discrimination tout court. So bias is a dimension of the decision-making itself, whereas discrimination describes the effects of a decision, in terms of adverse disproportionate impact resulting from algorithmic decision-making. Barocas and Selbst (2015) show that precisely this definition guides ‘disparate impact detection’, an enforcement mechanism for American anti-discrimination law in areas such as social housing and employment.”p.8</p> | <p>The ethics of algorithms: mapping the debate – Brent Daniel Mittelstadt, Patrick Allo, Mariarosaria Taddeo, Sandra Wachter and Luciano Floridi (2016)</p> |
| | | | <p>“specifically prevent the development or intensification of any discrimination between individuals or groups of individuals.” p.7.</p> | <p>European ethical Charter on the use of Artificial Intelligence in judicial systems and their environment – CEPEJ (2019)</p> |
| | | Equal treatment | <p>“The designer makes available to the regulatory authority and users a document describing its policy for the prevention and management of risks of bias. Regarding the representativeness of the data sets used for learning, he attests that the sampling does not contain under-representation or over-representation. Its</p> | <p>How digital is transforming law and justice towards new uses and a disruption of decision-making – Lémy Godefroy, Frédéric Lebaron and Jacques Lévy-Vehel (2019)</p> |

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| | | <p>document includes the risk analyzes carried out as well as any measures to manage the biases observed. One of these measures is the implementation of a bias removal procedure. The purpose of this procedure is to correct biased results by hybridizing "learning systems with prescriptions that the machine would be forced to [follow]" to avoid perpetuating these biases. This "clearing" leads to "straightening the learning sample as practiced for a survey. It is about transforming the data (...) so that the sample does not reflect biases known to society or more generally to the field studied. " A clearing operation is signaled to users who must be able to access the results that are not cleared in order to be able to fully exercise their freedom of appreciation" p.52.</p> | |
| | | <p>"Providing equal opportunity for disputing parties to be heard and present their case and all related documents (e.g., parties should have the same language or be provided with a translator); and minimizing the power imbalance of disputing parties due to different technology skills (e.g., parties should have similar internet skills)." p.384. , "Therefore, the equal treatment element recognized in this research for procedural fairness in ODR has the same definition as the voice element for procedural fairness that has been discussed in previous studies. However, in this research the voice element is called equal treatment due to the existence of technology in ODR." p.385</p> | <p>Universal Standards for the Concept of Fairness in Online Dispute Resolution in B2C E-Disputes – Fahimeh Abedi, John Zeleznikow and Chris Brien (2019)</p> |
| | | <p>"is a core value in most legal systems. This norm posits that legal decisions should be based upon the law and the facts, but not upon a party's socio-economic, political, racial, ethic, gender background or a variety of other individual characteristics that are illegal or inappropriate to consider. Defendants in the same circumstances should be treated the same under the law regardless of status." p.11.</p> | <p>The Ethics of Artificial Intelligence in Law: Basic Questions – Harry Surden (2020)</p> |
| | <p>Justice</p> | <p>"the concept of justice through the lens of our legal system: justice is</p> | <p>An architecture and issues for Online</p> |

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| | | the establishment or determination of rights according to the rules of law or equity” p.3966. | Dispute Resolution with Fairness and Justice – Zhengchuan Xu, Chenghong Zhang, Rong Zhao and Jianming Gao (2008) |
| | Consistency | “Consistency across person means that individuals should feel they have been treated equally and have the same rights during the procedure. Consistency across time means that each time the procedure follows the same rules. It is the individual's expectations that influence procedural fairness, not what they receive or what they experience in the process. [...] Findings indicated that consistency is more important than voice.” p.366. , “In ODR systems, to maintain consistency of rule, two requirements need to be considered: The existence of procedural guidelines (e.g., ODR providers could adopt rules and principles for their procedure from well-established ADR guidelines); and The existence of consistent and predictable outcomes, which also leads to trust.” p.390. | Universal Standards for the Concept of Fairness in Online Dispute Resolution in B2C E-Disputes – Fahimeh Abedi, John Zeleznikow and Chris Brien (2019) |
| | Neutrality | “Experts in cyber justice, digital law and e-commerce law say that technology is fundamentally not neutral; it will have sometimes voluntary consequences, other times involuntary. It can therefore be said that a strictly ethical approach to AI seems insufficient due to the very fluid nature of ethics and its absence of sanctions.” P.62 | Online settlement of cyber-consumption disputes in Quebec: literature review and food for thought for improving access to justice for consumers – Malicka K. Ayeva (2019) |
| “ODR systems and practitioners function with independence from the disputing parties, and any conflicts of interest are made transparent.” P.27. | | Ethical Principles for Online Dispute Resolution – Leah Wing (2016) | |
| “the absence of distortions or manipulation of the information on which the algorithms feed” p.5. | | The role of ethics in establishing certification for the use of algorithms in the legal system – Emilie Guiraud (2019) | |
| “Neutrality is an important factor in ODR systems, especially as ODR takes place in an online space, as it is difficult for parties to trust neutrals due to the absence of face-to-face interaction. | | Universal Standards for the Concept of Fairness in Online Dispute Resolution in B2C E-Disputes – Fahimeh Abedi, | |

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| | | | <p>Additionally, disputing parties are influenced by judgments made by neutrals and decisionmakers, so it is important to be skilled and trusted. Therefore, to establish neutrality of procedural fairness in ODR, the following two issues need to be addressed: Neutrals and decisionmakers should be impartial and independent; and Training courses and special qualifications for online neutrals and decisionmakers (e.g., providing a mediator or arbitrator with offline experience as well as online experience to learn independence in online resolution cases).” p.387.</p> | <p>John Zeleznikow and Chris Brien (2019)</p> |
| | | <p>Neutrality / impartiality</p> | <p>“The component of neutrality and impartiality indeed exists in traditional mediation. However, in the online process, its uniqueness is expressed in that this component is required not only with respect to the mediator, but also with respect to the service provider who employs him.” P.533.</p> | <p>No more click? Click in here: e-Mediation in Divorce Disputes – the reality and the desirable – Dafna Lavi (2015)</p> |
| | | | <p>“the principle of impartiality or neutrality has been discussed in relation to the use of ODR platforms that are controlled or owned by one disputing party, thus causing perceptions about conflict of interest, as well as the design of systems that do not perpetuate existing biases existing in the training data. Mediators who utilize ODR platforms have to be sensitive to the potential perceptions of bias towards parties who are more adept in using technology” p.6</p> | <p>Ethical Concerns in court-connected online dispute resolution – Dorcas Quek Anderson (2019)</p> |
| | | <p>Equality</p> | <p>“ODR processes are designed and implemented in ways that treat all participants with respect and human dignity; that system design and processes enable silenced or marginalized voices to be heard and actively seek to ensure that privileges and disadvantages are not replicated in the experience of participation; that no participant is placed at a higher risk than others; and, therefore, that ODR processes are designed to respond effectively to the reality that some contexts may put some at more risk than others” p.26.</p> | <p>Ethical Principles for Online Dispute Resolution – Leah Wing (2016)</p> |
| | | <p>Due process</p> | <p>“Addressing these issues requires an interdisciplinary approach, translating concepts of justice and</p> | <p>Ethics and Governance of Artificial</p> |

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| | | | <p>fairness between lawyers and policymakers (on the one hand) and technologists (on the other). Importantly, by partnering with local communities, we are working to demonstrate that the judicious and timely application of technology in can actually improve social service deliver, reduce interactions with the judicial system, and better advance the core motivations of the justice system as a whole.” P.2.</p> | <p>Intelligence Initiative – Berkman Klein Center (2017)</p> |
| <p>Transparency, communication, participation, clarity</p> | <p>26/48</p> | <p>Transparency</p> | <p>“The issue of transparency of algorithms is a thorny one. Building an algorithm requires bringing together a team of talents, and making them work together for several months, and even several years. [...] However, they still maintain control over the data they have in their possession, preserving a competitive advantage that cannot be offset.” p.87-88.</p> | <p>The ethics of predictive justice – Louis Larret-Chahine (2018)</p> |
| | | | <p>“It must make clear what dispute resolution process is being used. Clarity of identities must be present. For example, ODR schemes must clearly identify ODR providers and affiliations, "identities and affiliations of the interveners and managers of the ODR systems, and the security efforts undertaken by the ODR provider to safeguard user data and identity." ODR service providers should identify their physical location and contact information. Finally, parties should have the right to representation and should disclose that representation to others involved in the ODR process.” P.630-631.</p> | <p>Ethic and online dispute resolution : from evolution to revolution – Susan Nauss Exon (2016)</p> |
| | | | <p>“the transparency requirement has technical (black box code) and economic (protection of trade secrets) limits. To mitigate these limitations, the internal structure of the algorithm is not revealed to the public. However, the reliability of MAAD (Algorithmic Modes of Decision Analysis) depends on both the quality of the incoming data and the machine learning technique used. This is why the MAAD designer writes a document describing the type of programming chosen, demonstrating the</p> | <p>How digital is transforming law and justice towards new uses and a disruption of decision-making – Lêmy Godefroy, Frédéric Lebaron and Jacques Lévy-Vehel (2019)</p> |

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| | | | representativeness of the data, the objectivity of the selection and labeling of the data sets, etc.” p.51 | |
| | | | “All reasonable efforts are taken to make transparent the true purposes, risks and legal obligations inclusive of but not limited to: the form and legal jurisdiction of dispute resolution processes; the identities, affiliations, obligations and conflicts of interest of the parties, entities and systems; and the data security, confidentiality and privacy policies and systems involved.” P.27. | Ethical Principles for Online Dispute Resolution – Leah Wing (2016) |
| | | | “With transparency comes greater public interest in and awareness of the judicial process”. P.656. | Judicial Ethics in a Digital Age – Lorne Sossin and Meredith Bacal (2013) |
| | | | “readily-accessible information about all aspects of their [ODR] services” p.517-518. | Technology, ethics, and access to justice: should an algorithm be deciding your case? – Anjanette H. Raymond and Scott J. Shackelford (2013) |
| | | | “the lack of transparency in many ODR decisions means that precedent will not function in the same way that it does in regular trial courts; they will instead resemble small claims courts in which a transcript is often never kept.” P.644. | Building the virtual courthouse: ethical considerations for design, implementation, and regulation in the world of ODR – Scott J. Shackelford and Anjanette H. Raymond (2014) |
| | | | “This was firstly reflected in the policies for opening up public data, and in the requirements for transparency of decisions based on algorithms.” P.526. , “The principle of transparency of algorithms must therefore be applied to all operational or intermediate data (and no longer only descriptive) which underlie these algorithms.” p.536. | Transparency of algorithms in the face of Open Data: what status for learning data?– Danièle Bourcier and Primavera De Filippi (2018) |
| | | | “The fact of making algorithmic decision-making more transparent is explained by the need, for the persons concerned, to have the possibility of understanding the operation of the algorithm so as to be able, if necessary, to be able to challenge the decision. But very often, this will collides with "proprietary interests" p.6 | The role of ethics in establishing certification for the use of algorithms in the legal system – Emilie Guiraud (2019) |

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| | | <p>“Transparency relates to the quantity of the information provided to the parties in relation to the process' procedures and its quality.” P.521. , “In the component of transparency, the intent is that the programs for online dispute resolution must explain the process and its goals, must expose the identity and affiliations of service providers and mediators, as well as the means taken in order to protect the identities of the consumers of the service and the information provided by them.” P.532.</p> | <p>No more click? Click in here: e-Mediation in Divorce Disputes – the reality and the desirable – Dafna Lavi (2015)</p> |
| | | <p>“ODR schemes must make clear the process used in pursuit of dispute resolution or management. Further, ODR schemes must be transparent in terms of the identities and affiliations of the ODR providers, the identities and affiliations of the interveners and managers of the ODR systems, and the security efforts undertaken by the ODR provider to safeguard user data and identity. [...] Parties must always retain their right to be represented or assisted by a third party at all stages of the procedure. However, whenever parties are legally represented they may be asked to disclose their representation.” P.2-3.</p> | <p>Online Dispute Resolution Standards of Practice - Advisory Committee of the National Centre for Technology and Dispute (2009)</p> |
| | | <p>“It is desirable to disclose any relationship between the ODR administrator and a particular vendor, so that users of the service are informed of potential conflicts of interest. The ODR administrator may wish to publish anonymized data or statistics on outcomes in ODR processes, in order to enable parties to assess its overall record, consistent with applicable principles of confidentiality. All relevant information should be available on the ODR administrator’s website in a user-friendly and accessible manner.” P.2.</p> | <p>Technical Notes on Online Dispute Resolution – UNCITRAL (2017)</p> |
| | | <p>“The law traditionally places great importance on transparency in the workings of government and—in particular—in the administration of the justice system. Development processes and methodologies can be opaque, and jurisdictions do not always provide access to data that allows</p> | <p>Ethics and Governance of Artificial Intelligence Initiative – Berkman Klein Center (2017)</p> |

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| | | | for oversight of technology-enabled decisions. For this reason, we are building a database of the most common risk assessment tools used in the United States, to illuminate the methodologies and limitations of such tools.” P.2. | |
| | | | “It sets forth the information that parties have to be aware of when participating in arbitration (i.e., procedural and substantive provisions). At present, it is difficult to obtain accurate information about ODR providers. Although, most providers disclose information on the services they offer, insufficient information is given on their governing structure, funding models, fees, officials, shareholders, users and results. Accredited ODR providers should increase accountability and trust by disclosing this information, particularly when allowing private (for-profit) entities to carry out the arbitration processes.” P.229 | Accredited online dispute resolution services: creating European legal standards for ensuring faire and effective processes – Pablo Cortés (2008) |
| | | | “It states that consumers must be informed in simple terms about the mediation process. Essential information would be the cost of the online mediation, including the time involved and the status of the settlement. It also recommends the publication of the performance of the mediation process, such as the number of agreed settlements, average time, compliance records and so on. However, generally, given the confidential nature of most of these processes, ODR providers are reluctant to share these details, especially if this data may not be a positive publicity.” P.230 | dispute resolution services: creating European legal standards for ensuring faire and effective processes – Pablo Cortés (2008) |
| | | | “The predictions rendered by many AI systems should be transparent. Most AI systems are deterministic systems, which means that the outputs that they produce are entirely based upon the input data that goes in and the software and AI model that is used. [...] If we want to query why an AI system came to a particular prediction about a particular defendant, we should be able to determine exactly what happened by examining the input information about the defendant that went in, the AI model itself and how the AI model treated that | The Ethics of Artificial Intelligence in Law: Basic Questions – Harry Surden (2020) |

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| | | | information, and be able to reconstruct the computational process that led to the results.” p.16. | |
| | | Transparency, impartiality and intellectual integrity | “make data processing methods accessible and understandable, authorise external audits.” P.7. | European ethical Charter on the use of Artificial Intelligence in judicial systems and their environment – CEPEJ (2019) |
| | | Informed participation | “In the development and implementation of ODR systems and processes active effort is made to ensure (1) explicit disclosure to participants of all information about risks and benefits of the process, (2) the competency of participants to evaluate the information about participation in the process, (3) understanding by participants of the information, (4) whenever possible, the voluntary acceptance by the participants of the risks of participating; and whenever voluntary consent is not possible due to the mandatory nature of participation than that is made transparent.” P.26. | Ethical Principles for Online Dispute Resolution – Leah Wing (2016) |
| | | Participation | “ICODR should take the value of participation into account, because it is a private industry that services consumers. Parties' participation increases the effectiveness of ICODR as shown in the psychological experiments. A group of procedural fairness studies have proven that parties respect the procedure and outcome when they feel that it is fair, and people tend to feel satisfaction when they are given the opportunity to participate. Participation is also considered significant from the Kantian perspective, because it may be an expression of human dignity and autonomous choice. Negotiation theories also support this principle of participation, because satisfaction can be the motivating source of voluntary participation in negotiation. [...] UNCITRAL Law of 1985 recognizes the right to participate, the right to be given sufficient advance notice, and the right to access case information fully and equally” p.61-62 | International Commercial Online Dispute Resolution: just procedure through the internet – Soo Hye Cho (2009) |
| | | Clarity | “When a judicial or administrative decision is influenced or conditioned by an algorithm, this | Legal AI – Rubin Sfadj (2017) |

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| | | | should be said, and the purpose should be explained. Citizens and litigants who are subject to algorithmic processing have the right to be informed, and above all to be explained, in clear and precise terms, what data is used and in pursuit of what purpose.” P.17 | |
| | | Communication and counseling | “The communication and counseling function within the ethics of dispute resolution is complicated because of the need to fully explain different process choices and their possible consequences (especially in the context of pre-dispute counseling and contract drafting, as well as in post-hoc (dispute has "ripened") decisions) about whether to pursue litigation or some other form of dispute resolution like arbitration, mediation, or some other hybrid dispute resolution process, like med-arb, summary jury trial, or a private "mini-trial.””p.967 | Ethics Issues in Arbitration and Related Dispute Resolution Processes: What’s Happening And What’s Not – Carrie Menkel-Meadow (2001) |
| | | Communication | “Because AI in law—if it is to be used in a way that considers all of a client’s needs—will require gathering, datafying, formatting, and using especially sensitive client information in new ways, this communication with clients will be of paramount importance. Not only will lawyers need to discuss with clients the potential risks to their information, but also the fundamental nature of AI as a means of assisting with the representation—one that either has severe limitations, or which makes very complex use—with third parties—of especially sensitive new data, not previously datafied.” | Ethical Issues in Robo-Lawyering: The Need for Guidance on Developing and Using Artificial Intelligence in the Practice of Law – Drew Simshaw (2018) |
| Privacy, confidentiality, security, anonymization | 21/48 | Anonymization | Operation to replace the names of private persons with Mr. X and Mrs. Y without making other changes to the decisions. p.89. | The ethics of predictive justice – Louis Larret-Chahine (2018) |
| | | Security | “ If predictive justice could bring more security to litigants, by allowing the lawyer to define more precisely the risk and to inform his client as well as his duty requires him, the available tools would undoubtedly be beneficial but would level and standardize the arguments developed by lawyers, probably even more non-specialists, these | Insights into the “promises” of predictive justice – Aur a Martinay and Marie Mazens (2017) |

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| | | | <p>being limited to the answers put forward by the machines. The risk for the litigant, according to Gérard LOHRO, would it not be to miss out on a procedure rendering him justice, failing to have met a lawyer who would have “taken into account his case, however statistically deemed as a lost cause? ” p.10</p> | |
| | | | <p>“All reasonable efforts are made to ensure that the data and communication between the parties and other entities linked to ODR processes are secure to the fullest extent of the law, making transparent any known limitations.” P.27.</p> | <p>Ethical Principles for Online Dispute Resolution – Leah Wing (2016)</p> |
| | | | <p>“Security creates trust in the online space and enhances trust in the technology used in the ODR process. [...] security relies on technology” p.2.</p> | <p>Developing regulatory standards for the concept of security in online dispute resolution systems – Fahimeh Abedi, John Zeleznikow and Chris Brien (2019)</p> |
| | | | <p>Security : “The world of computing has always been interested in protecting systems and data from malfeasant access” p.156. As these worlds converge in the practice of ODR, it is important to separate between different connotations of the term:</p> <ul style="list-style-type: none"> - Information security : “the security of the ODR process in terms of protecting parties’ information from being shared by outsiders to the process as a result of to human activity.” P.157 - Data security : “focuses on the protections set in place around the communication channels, the software, the servers and any hardware used for ODR.” P.158. - Personal security : “Security connotes the provision of safe and clearly defined processes to protect users from actual harm, whether physical or emotional.” P.158. | <p>Fairness, Trust and Security in Online Dispute Resolution – Noam Ebner and John Zeleznikow (2015)</p> |

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| | | | <p>- System security : “Security connotes the degree to which users feel confident that the ODR service they are using – the technological platform or its human operators – is not utilizing their information, participation, behavior or data in any way.” P.159.</p> | |
| | | <p>Confidentiality</p> | <p>“Standard of Confidentiality requires a mediator to "maintain the confidentiality of all information obtained by the mediator in mediation, unless otherwise agreed to by the parties or required by applicable law., Mediation confidentiality is important for a number of reasons. It promotes candor by the parties, encouraging them to communicate and exchange information for settlement purposes. Consistent with Federal Rule of Evidence, confidentiality also helps prevent the use of mediation statements as admissions of liability or some other claim of weakness.” P.626</p> | <p>Ethic and online dispute resolution : from evolution to revolution – Susan Nauss Exon (2016)</p> |
| | | | <p>“The development and implementation of ODR systems, processes and practitioners maintain confidentiality in accordance with all legal obligations and in a manner that is consistent, in particular, with the principles of Legal Obligation, Informed Participation, Security and Transparency” p.25.</p> | <p>Ethical Principles for Online Dispute Resolution – Leah Wing (2016)</p> |
| | | | <p>“The JAMS confidentiality standard states: It is crucial that the mediator and all parties have a clear understanding as to confidentiality before the mediation begins. Before a mediation session begins, a mediator should explain to all parties (a) any applicable laws, rules or agreements prohibiting disclosure in subsequent legal proceedings of offer and statements made and documents produced during the session, and (b) the mediator's role in maintaining confidences within the mediation and as to third parties.” P.43 , “The reliance on confidentiality allows for free expression of ideas and options</p> | <p>Third-Party Ethics in the Age of the Fourth Party – Daniel Rainey (2014)</p> |

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| | | | that, for many reasons, might not surface in a proceeding where the exchanges become part of the public record or may be used as evidence of 'intent'." P.42. | |
| | | | "Technology facilitate the flow of information. That can create huge challenge in keeping dispute resolution processes confidential. [...] Traditional ADR ethics operate with near absolute confidentiality, which may prove shortsighted in the ODR context." P.9. | Virtual Virtues: Ethical Considerations for an Online Dispute Resolution Practice – Jo DeMars, Susan Nauss Exon, Kimberlee K. Kovach and Colin Rule (2010) |
| | | | "For many who choose to use arbitration, the advantages are not necessarily the oft cited claims of speed and lower cost ("efficiency"), but confidentiality. In major commercial cases, modem intellectual property and high technology cases, and in some more personal matters, like sexual harassment or discrimination, parties desire to resolve disputes without the larger public (including competitors and shareholders) learning about the details of a trade secret or a proposed business plan or a confidential personal fact." P.962 | Ethics Issues in Arbitration and Related Dispute Resolution Processes: What's Happening And What's Not – Carrie Menkel-Meadow (2001) |
| | | | "Confidentiality in mediation is far more complex than the confidentiality rules of conventional representation. Mediators promise confidentiality, often through contract, which is protected in many states by law (including the Uniform Mediation Act), but the law's reach into exceptions (reporting of physical abuse, legal violations, etc.) is less protected here and mediators (and ombuds and similar professionals) have been called to testify in a variety of court settings, despite assurances of confidentiality to the parties." P.409 | The Evolving Complexity of Dispute Resolution Ethics – Carrie Menkel-Meadow (2017) |
| | | | "Both mediation and arbitration often involve sensitive information that should remain confidential. [...] As a rule, all parties contract for absolute confidentiality of the existence of mediation/arbitration, of disclosures made during the proceedings, and of the outcome/award itself." P.274 | Emerging roles for third parties in cyberspace – Paul B. de Laat (2001) |
| | | | "deals with the confidentiality of the proceedings and protecting the | No more click? Click in here: e- |

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| | | <p>privacy of the parties. [...] The mediator is prohibited from transmitting to one party things told him by the other party, the online mediator is prohibited from transmitting to one party a message sent to him by the other party. Programs for online dispute resolution must provide safeguarding of confidentiality and data as required by legislation. The safeguarding of confidentiality becomes a more difficult mission due to the nature of the Internet, which enables easy access to information. However, when the information reaches the site, reasonable efforts will be made to protect access to the information and confidentiality.” P.533.</p> | <p>Mediation in Divorce Disputes – the reality and the desirable – Dafna Lavi (2015)</p> |
| | | <p>“The ODR administrator may wish to publish anonymized data or statistics on outcomes in ODR processes, in order to enable parties to assess its overall record, consistent with applicable principles of confidentiality.” P.2.</p> | <p>Technical Notes on Online Dispute Resolution – UNCITRAL (2017)</p> |
| | | <p>“confidentiality relies on norms and law. [...] In ODR, there is a trend towards transparency although some information needs to be kept confidential” p.2., “Confidentiality is related to data protection.” p.6.</p> | <p>Developing regulatory standards for the concept of security in online dispute resolution systems – Fahimeh Abedi, John Zeleznikow and Chris Brien (2019)</p> |
| | | <p>“Protecting confidentiality in an era of AI must go beyond merely ensuring security and must include competently understanding how AI systems work, communicating with clients (and former clients) to understand their expectations and preferences, and ensuring that the designers and managers of AI systems, including third parties, understand the critical importance of confidentiality.” p.200.</p> | <p>Ethical Issues in Robo-Lawyering: The Need for Guidance on Developing and Using Artificial Intelligence in the Practice of Law – Drew Simshaw (2018)</p> |
| | Confidentiality/privacy | <p>“Well-established commercial site, with a built-in incentive to maintain top security, encryption in both directions, and internal controls built on passwords and user rights. Knowing all of that, the parties would have been able to make an informed choice.” P.2</p> | <p>Mediator Ethics and the Fourth Party – Daniel Rainey (2014)</p> |
| | Informational privacy | <p>“The right of data subjects to “shield personal data from third parties.” Informational privacy concerns the capacity of an</p> | <p>The ethics of algorithms: mapping the debate – Brent Daniel</p> |

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| | | | individual to control information about herself (Van Wel and Royackers, 2004), and the effort required by third parties to obtain this information” p.9-10 | Mittelstadt, Patrick Allo, Mariarosaria Taddeo, Sandra Wachter and Luciano Floridi (2016) |
| | | Privacy | “privacy concentrates on personal data protection. [...] the privacy of personal information which is in contrast to transparency, could be performed by publishing only the general procedure of ODR and removing details of the identity of the parties.” p.6 | Developing regulatory standards for the concept of security in online dispute resolution systems – Fahimeh Abedi, John Zeleznikow and Chris Brien (2019) |
| Impartiality, independence, objectivity | 17/48 | Impartiality | “Standard of Impartiality, requires a mediator to act without "favoritism, bias or prejudice," avoiding even the appearance of partiality. Additional comments instruct a mediator to maintain impartiality in respect to the participants' "personal characteristics, background, values and beliefs, or performance at a mediation, or any other reason." Impartiality applies to all conduct at mediation, including both verbal and nonverbal communication. Thus, a mediator should approach all parties with equal respect, openness, and curiosity, carefully considering the manner in which questions are phrased and positions and interests are summarized or reframed. A mediator should remain impartial to the information she receives from the parties. Impartiality also applies to other aspects of mediation, such as the use and arrangement of furniture, seating assignments, and methods to greet participants as they arrive at mediation.” P.624 | Ethic and online dispute resolution : from evolution to revolution – Susan Nauss Exon (2016) |
| | | | “ODR processes are designed and implemented, and practitioners function with commitment to reducing bias in the delivery of the process. This includes accounting for technological and other conditions that could structure patterns of privilege in process and outcome for repeat players with particular attention to the principles of Accessibility, Fairness and Transparency” p.26. | Ethical Principles for Online Dispute Resolution – Leah Wing (2016) |
| | | | “it is not only impossible but also potentially delegitimizing for our field to use it as a means of representing our work. [...]Every | Virtual Virtues: Ethical Considerations for an Online Dispute |

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| | | <p>set of mediation standards of conduct we reviewed [...] require mediator impartiality.” P.7</p> | <p>Resolution Practice – Jo DeMars, Susan Nauss Exon, Kimberlee K. Kovach and Colin Rule (2010)</p> | |
| | | <p>“The ethical standard for judicial impartiality is not determined in relation to community standards on morality, but rather mirrors the test for a reasonable apprehension of bias under which a decision of the court may be challenged.” P.637.</p> | <p>Judicial Ethics in a Digital Age – Lorne Sossin and Meredith Bacal (2013)</p> | |
| | | <p>“The conditions for a successful ODR system may be expressed in the affirmative as providing the user with trust and confidence by being impartial. Put in the negative, it must be unbiased [...] requiring judges to be impartial, to sit in public, to give reasons and be subject to appeal. For ODR the operation of the platform needs similar protections suitable for its context – “technology is by no means neutral and a particular software design reflects a preference for certain values over others.” P.12.</p> | <p>The Future of Dispute Resolution: online ADR and online courts – Michael Legg (2016)</p> | |
| | | <p>“It requires mediators not to have a conflict of interest with either party. This principle is complemented with the principle of transparency since impartiality can only be assured by requiring mediators to disclose the relevant information that may affect their independence or impartiality. Also parties must be allowed to recuse mediators if there is (or if it is perceived that there is) a conflict of interest. This would be compatible with the immunity of mediators, which should be considered separately from the immunity of arbitrators.”p.230</p> | <p>Accredited online dispute resolution services: creating European legal standards for ensuring faire and effective processes – Pablo Cortés (2008)</p> | |
| | | <p>Independence and impartiality</p> | <p>“operating independently from business and government interest and without bias favoring those interests” p.518.</p> | <p>Technology, ethics, and access to justice: should an algorithm be deciding your case? – Anjanette H. Raymond and Scott J. Shackelford (2013)</p> |
| | | <p>Independence</p> | <p>“It for ODR arbitrators must be equivalent to the standard expected from offline third neutral parties, such as arbitrators and judges. Impartiality must also be included in the directive. This</p> | <p>Accredited online dispute resolution services: creating European legal standards for ensuring faire and</p> |

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| | | | will require a transparent funding system, which does not create a bias toward any of the parties involved. In addition, it must address liability of ODR third neutral parties and providers. A provision establishing immunity for arbitrators would ensure their impartiality and shield them from undue influence in making decisions, but unlike the neutral expert, the online arbitrator should be immune from actions for negligence.” P.228-229 | effective processes – Pablo Cortés (2008) |
| Trust | 11/48 | Trust | “The justice and equity of a system are among the factors that help to inspire trust. Moreover, no one would want a system of justice that did not deserve to be trusted, in other words, one that did not provide justice to those who use it. However, trust is not related only to the effects produced by a social system, but to other types of factors as well.” p.308. | CyberJustice and Ethical Perspectives of Procedural Law – Daniel Weinstock (2016) |
| | | | <p>Usages of the term “trust” as it relates to ODR:</p> <ul style="list-style-type: none"> - Trust provider/facilitator : “Incorporating ODR into systems such as e-commerce is one measure expected to raise consumers’ level of trust in the system. Continuing development of the Internet, from a financial perspective, has always depended on the success of e-commerce, which is, in turn, absolutely dependent on trust.” P.155. - User’s trust : “ODR must be marketed, and its technology must be constructed, in such a way that the public will trust it as an efficient and effective way of managing their disputes.” P.155. - Interpersonal trust : “Parties utilizing the ODR experience not only levels of distrust inherent in most conflict situations; they are also hindered by challenges | Fairness, Trust and Security in Online Dispute Resolution – Noam Ebner and John Zeleznikow (2015) |

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| | | | <p>to trust between parties, and trust between parties and their neutral, which are triggered by the nature of online communication and of the online environment” p.156.</p> <p>- Trust in content offered by the system : “a powerful connection between users’ trust in the content, and the degree to which the system is perceived as “fair” exists, demonstrating the need for close examination of these concepts and the ways they interact in ODR systems.” P.156.</p> | |
| | | | <p>“It would offer some guarantee to users that the intermediaries involved, whether mediators or arbitrators, and the procedures they employ, are up to certain standards. [...] The whole procedure needs to be handled with precision and care, in order to guarantee the enforceability of an award in court”. P.274.</p> | <p>Emerging roles for third parties in cyberspace – Paul B. de Laat (2001)</p> |
| | | | <p>“Trust in IT relies on infrastructure systems such as the web or on specific information systems like Microsoft Excel. The concept of trust is ‘a secure willingness to depend on a trustee because of that trustee’s perceived characteristics’” p.214.</p> | <p>Universal standards for the concept of trust in online dispute resolution systems in e-commerce disputes – Fahimeh Abedi, John Zeleznikow and Emilia Bellucci (2019)</p> |
| | | | <p>“Trust has to be established on many fronts: trust that the ODR technology will not fail; trust that the system will be competent and capable of resolving the dispute; confidence that the system is user-friendly; and trust that the process will not involve unanticipated time and costs.” P.17</p> | <p>Ethical Concerns in court-connected online dispute resolution – Dorcus Quek Anderson (2019)</p> |
| | | <p>Trustworthiness</p> | <p>“The reason for this criterion is that individuals will trust, accept, and follow the rules and procedures if they feel the authorities are fair. In fact, in ODR systems, the quality of treatment and the decisionmaking process shape the attitude of disputing parties about the trustworthiness of the authorities. [...] Trustworthiness in ODR systems should be provided</p> | <p>Universal Standards for the Concept of Fairness in Online Dispute Resolution in B2C E-Disputes – Fahimeh Abedi, John Zeleznikow and Chris Brien (2019)</p> |

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| | | | through two aspects: Evaluator systems for neutrals' and decisionmakers' practice (e.g., parties can make complaints against neutrals or give feedback to inform ODR providers about their neutrals' performance. Even the system itself could test neutrals regularly to see whether or not they have the minimum qualifications); and A panel of neutrals and decisionmakers. p.388” | |
| | | Loyalty | “The designer reports at all times on the MAAD's compliance with the ethical requirements of the specifications. He must justify that the MAAD favors modeling techniques adapted to the requirement of explicability, that the results represent an unbiased sample of the case law and that they are updated to take into account the evolutions of the rules, etc. Respect for the principle of loyalty implies in particular the establishment of an obligation of follow-up at the expense of the designer. This periodically checks that the models released remain relevant by testing the algorithm, for example, by reverse engineering.” P.51 | How digital is transforming law and justice towards new uses and a disruption of decision-making – Lêmy Godefroy, Frédéric Lebaron and Jacques Lévy-Vehel (2019) |
| | | | “We can illustrate this through algorithmic loyalty. This could be framed by citizen and institutional regulation [...] The citizens recommended the establishment of codes of ethics - of ethics - of conduct in which would be the concepts of consent, neutrality, confidentiality, in addition to addressing the protection of human diversity.” P.6. | The role of ethics in establishing certification for the use of algorithms in the legal system – Emilie Guiraud (2019) |
| | | | “loyalty consists in ensuring in good faith the classification or referencing service, without seeking to alter or divert it for purposes foreign to the interest of users” p.48. , “a fair algorithm should not have the effect of generating, reproducing or reinforcing any discrimination whatsoever, even without the knowledge of its designers.” P.49. | How can humans keep the upper hand? The ethical issues of algorithms and artificial intelligence – CNIL (2017) |
| Responsibility, accountability, public | 10/48 | Responsibility | “the principle of responsibility should impose for each algorithm the designation of a referent person, like what is done in the press, where the director of the | Legal AI – Rubin Sfadj (2017) |

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| accounting, obligation | | | publication is responsible for the content that he publishes.” P.17 | |
| | | Moral responsibility | “When a technology fails, blame and sanctions must be apportioned. One or more of the technology’s designer (or developer), manufacturer or user are typically held accountable. Designers and users of algorithms are typically blamed when problems arise (Kraemer et al., 2011). Blame can only be justifiably attributed when the actor has some degree of control (Matthias, 2004) and intentionality in carrying out the action.” P.10 | The ethics of algorithms: mapping the debate – Brent Daniel Mittelstadt, Patrick Allo, Mariarosaria Taddeo, Sandra Wachter and Luciano Floridi (2016) |
| | | Accountability | “The development and implementation of ODR systems, processes and practices are accountable to the institutions, legal frameworks and communities that they serve” p.25. | Ethical Principles for Online Dispute Resolution – Leah Wing (2016) |
| | | | “expectation that one may be called on to justify one's beliefs, feelings, and actions to others” p.640. | Building the virtual courthouse: ethical considerations for design, implementation, and regulation in the world of ODR – Scott J. Shackelford and Anjanette H. Raymond (2014) |
| | | | “Accountability concerns have led to calls for ODR systems to be able to explain the role played by algorithms in reaching a decision.” P.7 | Ethical Concerns in court-connected online dispute resolution – Dorcus Quek Anderson (2019) |
| | | Legal obligation | “The design and implementation of ODR systems and processes uphold the laws of relevant jurisdictions and ensure that relevant laws are known and followed in the context of the principles of Accessibility, Informed Participation and Transparency.” P.27. | Ethical Principles for Online Dispute Resolution – Leah Wing (2016) |
| | | Public accounting | “In the process, arbitrators have a great flexibility as to which substantive law they should apply. These requirements can only be met by some public function: awards are to be published in one form or another.” P.275. | Emerging roles for third parties in cyberspace – Paul B. de Laat (2001) |
| Autonomy, freedom, liberty, self- | 9/48 | Autonomy | “Value-laden decisions made by algorithms can also pose a threat to the autonomy of data subjects. The reviewed literature in particular connects | The ethics of algorithms: mapping the debate – Brent Daniel Mittelstadt, |

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| determination, empowerment | | personalisation algorithms to these threats. Personalisation can be defined as the construction of choice architectures which are not the same across a sample (Tene and Polonetsky, 2013a). Similar to explicitly persuasive technologies, algorithms can nudge the behaviour of data subjects and human decision-makers by filtering information (Ananny, 2016). Different content, information, prices, etc. are offered to groups or classes of people within a population according to a particular attribute, e.g. the ability to pay” p.9 | Patrick Allo, Mariarosaria Taddeo, Sandra Wachter and Luciano Floridi (2016) |
| | Liberty | “What would happen to the freedom of the judge in a predictive justice system? Courts may fear, in times of budgetary restraint, that they may be forced to use predictive tools, such as "template" forms, to make their decisions. This would restrict their expression, facilitate their evaluation and promote the faster application of justice, which would therefore be more economical.” P.9 | Insights into the “promises” of predictive justice – Aur a Martinay and Marie Mazens (2017) |
| | | “It means that the consumer must agree to arbitration freely. This principle was previously discussed in relation to mandatory clauses. Let me just emphasize that under my proposal for a directive, the business could only include a mandatory clause for the use of accredited ODR services, which should be sufficiently highlighted as so to make the consumer aware of it before the contract is signed.” P.229 | Accredited online dispute resolution services: creating European legal standards for ensuring faire and effective processes – Pablo Cort s (2008) |
| | Self-determination | “The hallmark of mediation is the concept of party autonomy. Standard of Self-Determination, is the guiding principle of mediation. "Self-determination is the act of coming to a voluntary, uncoerced decision in which each party makes free and informed choices as to process and outcome." Self-determination means that the parties have the right to select a mediator of their choice, decide whether to go to mediation, stay in mediation, withdraw from the process, and decide any substantive outcome.” P.624 | Ethic and online dispute resolution : from evolution to revolution – Susan Nauss Exon (2016) |
| | | “Self-determination is the act of coming to a voluntary, uncoerced | Third-Party Ethics in the Age of the |

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| | | | <p>decision in which each party makes free and informed choices as to process and outcome. Parties may exercise self-determination at any stage of a mediation, including mediator selection, process design, participation in or withdrawal from the process, and outcomes.” P.46.</p> | <p>Fourth Party – Daniel Rainey (2014)</p> |
| | | <p>Empowerment</p> | <p>“ODR systems and processes are designed and implemented in ways that seek to enable growth and positive change for individuals, relationships, systems and society, thereby increasing access to justice and enhancement of choices and effective decision making opportunities” p.26.</p> | <p>Ethical Principles for Online Dispute Resolution – Leah Wing (2016)</p> |
| | | <p>Empowerment / Informed Participation</p> | <p>“The principles of empowerment and informed participation have also been at the heart of the criticism of how court-connected mediation has been conducted. Commentators have written about how court-connected mediation in the US frequently involved evaluative interventions, and reduced the parties’ autonomy and participation in what is meant to be a highly participative process. Katsch and Rabinovich-Einy aptly summed up the situation, stating that “[t]he reality of court-annexed mediation was very different than the promise for a context-specific tailored process that maximized party autonomy, participation and control”. They elaborated that “the adoption of ADR in courts has led to the erosion of the formal informal distinction, and much of what transpires in courts has become ‘semi-formal’, with efficiency being the primary driving force for settlement-encouragement”” p.8</p> | <p>Ethical Concerns in court-connected online dispute resolution – Dorcas Quek Anderson (2019)</p> |
| <p>Accessibility</p> | <p>8/48</p> | <p>Accessibility</p> | <p>““ODR systems should be accessible in that they are easy to find and access, but accessible also in the sense that they address geographical and language barriers... striv[ing] to become media neutral in order to encourage the widest access.” Access also means parties should have access to justice. Nonetheless, technology should not be imposed on those who cannot interact with technology nor discourage those who can profit from using ODR” p.630</p> | <p>Ethic and online dispute resolution : from evolution to revolution – Susan Nauss Exon (2016)</p> |

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| | | <p>“The design and implementation of efficient and effective processes provide for their usage, not only to the broadest range and number of people, but also by accounting for the reality of cultural differences within and between jurisdictions, as well as differential access to resources and experiences of marginalization that can hinder access to dispute resolution and justice processes, whether formal or informal. ODR systems and processes effectively facilitate and do not limit the right to representation for parties in processes of dispute resolution” p.25.</p> | <p>Ethical Principles for Online Dispute Resolution – Leah Wing (2016)</p> |
| | | <p>“ease of use” p.518</p> | <p>Technology, ethics, and access to justice: should an algorithm be deciding your case? – Anjanette H. Raymond and Scott J. Shackelford (2013)</p> |
| | | <p>“With respect to accessibility, the intention is that the model of e-Mediation must be available and easy to use for the consumers of the service. Similarly, it must aid in overcoming the language barriers. Additionally, this platform must include the possibilities of easy to use and available assistance and guidance, while preserving user interfaces that are as simple as possible.” P.532.</p> | <p>No more click? Click in here: e-Mediation in Divorce Disputes – the reality and the desirable – Dafna Lavi (2015)</p> |
| | | <p>“ODR systems should be accessible in that they are easy to find and access, but accessible also in the sense that they address geographical and language barriers. Insofar as it is possible, ODR systems should strive to become media neutral in order to encourage the widest access. The Online Dispute Resolution technology developed must reflect an ease of use to all system users. ODR platforms should make help content and tutorials readily available to users, and strive to keep user interfaces as simple and intuitive as possible. The use of technology in Online Dispute Resolution must increase parties' access to justice.” P.2.</p> | <p>Online Dispute Resolution Standards of Practice - Advisory Committee of the National Centre for Technology and Dispute (2009)</p> |

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| | | | <p>“A seamless ODR system will offer great accessibility and convenience to the user. A most user-friendly system will likely allow information entered in one phase to be ported over to the next stage of the ODR system, reducing the need for the user to repeatedly provide. However, the accessibility principle is constrained by the need to ensure the confidentiality and inadmissibility of information and communications in the negotiation and mediation stages.” p.10.</p> | Ethical Concerns in court-connected online dispute resolution – Dorcas Quek Anderson (2019) |
| | | Access to the process | <p>“The mediators spent some time training the parties in the use of the technology, and making sure that each side was able to access information, input information, and navigate the documents stored in the online archive. It is not difficult to imagine a situation in which online tools are not equally accessible to the parties, and in which it would create a disadvantage if it were necessary to use an ODR platform. It is ethically imperative for the third party in a face-to-face environment to design and implement a process that is comfortable for the parties and in which they have an equal ability to engage. It is equally ethically imperative for the third party to consider the impact of the Fourth Party in process design, and in monitoring party activity during the conflict engagement process.” P.3</p> | Mediator Ethics and the Fourth Party – Daniel Rainey (2014) |
| | | Access to technology | <p>“Although increased technology may potentially advance the field of mediation, these advances will not be available to those who do not have access to a computer and the Internet. This may be especially true for online resolution of disputes occurring in the physical-rather than the virtual-world. These types of "access issues". Even those who have access to the Internet at home may still lack the ability to scan and send documents to the other party or engage in videoconferencing” p.206-207</p> | Online Mediation : Where we have been, where we are now, and where we should be – Sarah Rudolph Cole and Kristen M. Blankley (2006) |
| Reliability, safety, integrity, honesty, | 7/48 | Epistemic confidence | The point is rather to remind designers of these new technologies that it is important to include reflection on the epistemic | CyberJustice and Ethical Perspectives of Procedural Law – |

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| expertise, confidence | | | dimension of justice proceedings and the challenges it imposes when we marginalize or reduce the role given to an individual's judgement of the credibility of another individual through in-person observation" p.313. | Daniel Weinstock (2016) |
| | | Reliability | "Because language evolves quickly, algorithms can always make a mistake when resolving a syntactical ambiguity, even if they have been perfectly constructed. In other words, based on an evolving material and sometimes having several meanings, the algorithms do not always fully understand the language or the hidden meaning that it takes." p.87. | The ethics of predictive justice – Louis Larret-Chahine (2018) |
| | | | "Predictive justice could push judges into the norm, "depriving them of the very meaning of their function, which is to question and decide on the reliability of the point of view taken by the lawyer," according to Maître FIERS. The statistical instruments developed could allow profiling of judges, courts and produce trends, which would constrain magistrates. Maître FIERS doubted, however, that the magistrates would be forced to impose what should remain "one tool among others, for the sake of justice"." P.9-10 | Insights into the "promises" of predictive justice – Auréa Martinay and Marie Mazens (2017) |
| | | | Quality and safety | "with regard to the process- ing of judicial decisions and data, use certified sources and intangible data with models elaborated in a multi-disciplinary manner, in a secure technological environment." P.7. |
| | | Honesty | "ODR processes are designed and implemented with the intention that data is gathered, managed and presented in ways to ensure it is not misrepresented or presented out of context" p.26. | Ethical Principles for Online Dispute Resolution – Leah Wing (2016) |
| Competence, expertise | 7/48 | Competence | "Standard of Competence, states that a mediator shall mediate when she has the "necessary competence to satisfy the reasonable expectations of the parties." Special attention should be paid to a mediator's overall qualifications such as training, mediation experience, skills, and cultural understandings. A continuing obligation exists for mediators to maintain and enhance their competence. | Ethic and online dispute resolution : from evolution to revolution – Susan Nauss Exon (2016) |

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| | | <p>Competence, therefore, applies to two perspectives: first, a mediator must be competent before beginning to mediate; and second, a mediator has a continuing obligation to maintain and enhance her skills through educational programs.” P.625</p> | | |
| | | <p>“ODR systems, processes and practitioners will be competent in or provide access to relevant technological or human competency required for the effective implementation of the dispute resolution process that they undertake to assist with.” P.25.</p> | <p>Ethical Principles for Online Dispute Resolution – Leah Wing (2016)</p> | |
| | | <p>“One ethical issue related to competence that continues to stand out for me is the willingness of third parties and parties to use e-mail as a channel of communication. [...] Competence, as it relates to ODR, includes both the ability to manage the technology, and knowledge sufficient to advise the parties about the risks involved in using the technology” p.4</p> | <p>Mediator Ethics and the Fourth Party – Daniel Rainey (2014)</p> | |
| | | <p>“Competence in an era of AI should require a lawyer to either be involved in the design of the AI systems they are using, or at the very least, to understand (with the help of an expert, if needed) certain underlying characteristics that affect the AI’s bias (including that of the design, designer, and data), its limits (including the limits of observational data and exclusion of information which has not been “<i>datafied</i>”), and its confidentiality concerns.” p.198.</p> | <p>Ethical Issues in Robo-Lawyering: The Need for Guidance on Developing and Using Artificial Intelligence in the Practice of Law – Drew Simshaw (2018)</p> | |
| | | <p>Expertise</p> | <p>“Advanced forms of ODR acquire knowledge from human experts to create the ODR platform. It follows that the information obtained and then utilised by the ODR platform needs to be accurate. The relevant expertise or information may differ between an ODR platform seeking to mimic ADR and one that is an online court.” P.10.</p> | <p>The Future of Dispute Resolution: online ADR and online courts – Michael Legg (2016)</p> |
| | | <p>Competence and credentialing</p> | <p>“Many modern codes of conduct or procedural rules for arbitrators suggest at least some minimal levels of performance, framed in such terms as “diligence” or timely performance of duties, or more recently, the writing of reasoned opinions with awards.</p> | <p>Ethics Issues in Arbitration and Related Dispute Resolution Processes: What’s Happening And What’s Not –</p> |

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| | | | Because arbitrators often enjoy a "quasi-judicial immunity" for performing judicial-like services, their conduct is virtually never reviewed in a legally filed malpractice action." P.963 | Carrie Menkel-Meadow (2001) |
| | | Mediator Competence | "A mediator should have sufficient knowledge of relevant procedural and substantive issues to be effective. A mediator should attend educational programs and related activities to maintain and enhance the mediator's knowledge and skills related to mediation. A mediator should have available for the parties information relevant to the mediator's training, education, experience and approach to conducting a mediation." P.49. | Third-Party Ethics in the Age of the Fourth Party – Daniel Rainey (2014) |
| Affordability | 5/48 | Affordability | "ODR should "provide access to justice where formal channels are not available," as an economic alternative to formal dispute resolution processes. ODR should provide prompt dispute resolution and cost savings." P.630 | Ethic and online dispute resolution : from evolution to revolution – Susan Nauss Exon (2016) |
| | | | "particularly in light of the amount of compensation sought" p.518. | Technology, ethics, and access to justice: should an algorithm be deciding your case? – Anjanette H. Raymond and Scott J. Shackelford (2013) |
| | | | "In the component of affordability and effectiveness the intention is that e-Mediation must provide an affordable alternative to traditional mediation (as well as to the adversarial process). Similarly, the dispute must be dealt with within a reasonable period of time, and as fast as possible." P.532. | No more click? Click in here: e-Mediation in Divorce Disputes – the reality and the desirable – Dafna Lavi (2015) |
| | | | "Online Dispute Resolution Systems may be an alternative to court or person-to-person based dispute resolution, creating cost savings by their very nature. Disputes when resolved online should be dealt with in a reasonable time period, which reflects the needs of the disputes at hand. In any event, disputes must be resolved as expeditious as possible. Further, Online Dispute Resolution schemes must provide an economical alternative to formal dispute resolution processes, and provide access to | Online Dispute Resolution Standards of Practice - Advisory Committee of the National Centre for Technology and Dispute (2009) |

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| | | | justice where formal channels are not available, at an economic level that does not disenfranchise potential users in developing areas or in conflict/post conflict zones” p.2. | |
| Respect | 4/48 | Respect | “People’s feeling of respect for their legal institutions, and the related legitimacy and authority they enjoy, are partly a function of their architecture.” p.311. | CyberJustice and Ethical Perspectives of Procedural Law – Daniel Weinstock (2016) |
| | | | “This means ODR providers should behave respectfully to parties, because when individuals receive respectful behaviour from decisionmakers and neutrals in ODR, it enhances their satisfaction with the fairness of the procedure. Findings in this research identified three components of the respect element: Providing an opportunity for disputing parties to have control over the process and their outcomes (e.g., they can propose solutions where their rights are protected); Dignity for and equitable treatment of disputing parties regardless of the value of the purchase or the social status of the parties; and The proceedings should not be delayed without a reasonable cause.” p.385. | Universal Standards for the Concept of Fairness in Online Dispute Resolution in B2C E-Disputes – Fahimeh Abedi, John Zeleznikow and Chris Brien (2019) |
| | | | “ensure that the design and implementation of artificial intelligence tools and services are compatible with fundamental right.” P.7. | European ethical Charter on the use of Artificial Intelligence in judicial systems and their environment – CEPEJ (2019) |
| Conflicts of interests | 4/48 | Conflicts of interest | “This standard instructs mediators to avoid conflicts of interest, including the appearance of a conflict during and after a mediation. Conflicts of interest may arise from a mediator's involvement with the subject matter of the dispute or from a relationship that the mediator may have with any mediation participant, "whether past or present, personal or professional, that reasonably raises a question of a mediator's impartiality." A mediator must disclose any actual or potential conflict of interest that may raise a question about the mediator's impartiality. If the parties agree after disclosure, the mediator may proceed. If at any time the mediator believes that a | Ethic and online dispute resolution : from evolution to revolution – Susan Nauss Exon (2016) |

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| | | | <p>conflict of interest is affecting the integrity of the mediation, the mediator "shall withdraw from or decline to proceed with the mediation" p.625</p> | |
| | | | <p>"Conflicts of interests can be considered to exist at "macro" and "micro" levels. Systemic issues of conflicts of interests occur as those in the field debate whether there is an inherent conflict of interest in the arbitration role where arbitrators are chosen by parties and thus must "satisfy" or please the choosing parties sufficiently to be chosen again, particularly if the arbitrator is more or less a full time arbitrator who depends exclusively on arbitration for income. From the perspective of some parties and arbitrators, this leads to "compromise" awards in which arbitrators are accused of "splitting the baby" to keep both parties reasonably happy (or equally unhappy), and prevents more definitive rulings when those are actually more accurate or "just." P.956</p> | <p>Ethics Issues in Arbitration and Related Dispute Resolution Processes: What's Happening And What's Not – Carrie Menkel-Meadow (2001)</p> |