

THE USE OF TECHNOLOGY IN DISPUTE RESOLUTION; A FRAMEWORK FOR THE STUDY OF ODR

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Abstract. During the Covid-19 Pandemic, the term “Online Dispute Resolution” has become a buzzword to indicate dispute resolution procedures that variously employ Information and Communication Technology. Against this backdrop, doubts arise regarding the function and degree of involvement of technology necessary to label certain dispute resolution processes as ODR. Scholars and regulators across the world have provided several definitions of ODR so as to include a wide range of dispute resolution procedures. While examining different doctrinal orientations and approaches of international ODR institutions, this contribution will propose a definition of ODR, outline a theoretical framework for the systemic study of ODR processes, and identify areas of interest for future research.

INTRODUCTION

Online Dispute Resolution (“ODR”) is a complex and multi-faceted phenomenon, whose rapid evolution appears to challenge harmonisation efforts and the elaboration of universally accepted definitions. Despite the attempts to implement a coherent framework for ODR, there is still no clarity regarding what ODR is and the types of dispute resolution processes it encompasses. This uncertainty stems from the fact that there is no well-established legal definition of ODR nor is there uniformity of views in literature regarding the distinctive features of ODR processes.

The situation has been further exacerbated by the Covid-19 Pandemic, which determined a rapid increase in the use of Information and Communication Technology (“ICT”) - and especially video conferencing - in the area of dispute resolution. As a result, ODR has become a buzzword to indicate any type of procedure that relies on ICT components, including e-mail exchanges and video conferencing tools. Issues related to ICT and dispute resolution garnered attention in the international arena, fostering the debate around ODR and the potential of technology to improve the efficiency and quality of justice.

The ODR movement started to gain momentum and the implementation of ODR systems became a key agenda item for State bodies and international institutions. The call for efficient avenues for resolving disputes remotely prompted entrepreneurs in the field to enhance existing systems and develop new tools to adequately meet users’ needs. At the same time, dispute resolution providers

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and regulatory bodies across the globe multiplied their efforts to provide guidance on the use of ICT in dispute resolution processes.

Long before the Pandemic, ODR techniques had proven effective to resolve disputes in a wide range of practice areas, including - but certainly not limited to - electronic commerce transactions. In a number of instances, policymakers and international organisations stressed the importance of ODR and devised regulatory instruments, best practices, and protocols to encourage the development of ODR systems and address the legal and practical issues arising from the use of technology. This contribution aims to shed light on the definition of ODR and the current ODR landscape by offering a snapshot of different doctrinal orientations and approaches of scholars and international institutions operating in the field.

After a brief overview of the historical development of ODR [Section I], this contribution will review existing notions and conceptualizations of ODR and propose an operational definition of ODR [Section II]. The analysis will then focus on the characteristics and functions of the core component of ODR as herein construed, namely technology as the “fourth party” to the dispute resolution process. While examining the features of ODR and ODR technology with a critical eye, this contribution will propose a theoretical framework for the systemic study of the phenomenon and identify areas of interest for future research [Section III].

1. THE EVOLUTION OF ODR

A brief overview of the development of ODR is integral to a good understanding of the phenomenon and its implications. This section will provide insight into the dynamics of ODR, including its most recent developments and future directions.

The history of ODR begins in the United States and has its roots in the increase in online activities and services as well as in the growing demand for efficient and cost-effective dispute resolution mechanisms (Sela, 2017; Zeleznikow, 2020). The driving forces behind the development of ODR were the unsuitability of traditional approaches for resolving low-value, high-volume disputes arising out of online activities and the potential of ICT to improve the effectiveness of ADR.

Scholars break down the development of ODR into four phases: hobbyist, experimental, entrepreneurial, and institutional (Conley-Tyler, Bretherton, 2003).

In the early days, access to technology was limited to a restricted pool of users, the majority of which belonged to the military or academia. The closed nature of private networks, along with their limited functionality, usability, and reach, kept the internet relatively free of disputes (Katsh, Rabinovich-Einy, 2017). Early online disputes largely stemmed from the misuse of e-mail or chats to circulate discriminatory messages and did not involve monetary transactions or infringements of legal rights. Until 1992, Internet users were indeed prohibited from engaging in for-profit activities on the Internet (Balvin, 2011).²

² The ban was imposed by the National Science Foundation (“NSF”), a US independent federal agency that was managing the Internet at the time. The NSF played a key role in evolving the Internet by initiating NSFNET (a network that lin-

During this phase of ODR history, known as the “hobbyist phase”, online resolution methods primarily resulted from the community-based efforts of enthusiasts who worked without any formal support from institutions or official bodies (Katsh, Rabinovich-Einy, 2017). With the lifting of the ban and the development of more advanced and user-friendly web browsers, the Internet started to attract waves of new users. As Internet services developed and the first e-commerce websites were launched, disputes stemming from online transactions began to crest. Soon it became evident that traditional approaches - such as litigation and ADR - were unfit to resolve these types of disputes, which involved features and dynamics largely unknown to the offline world (Katsh, Rabinovich-Einy, 2017).

In May 1996, the National Center for Automated Information Research (“NCAIR”) sponsored the first conference on ODR. The event drew attention to the search for suitable mechanisms for handling the growing number of low-value disputes originating from the use of the web. This, in turn, prompted non-profit organizations and academic institutions to undertake research in the field and set up ODR pilot programs (Katsh, 2006).³

This became known as the “experimental phase”, with the NCAIR conference being commonly regarded as the beginning of the ODR movement. As early ODR initiatives largely replicated ADR processes, ODR began its existence as an online equivalent of the most prominent offline dispute resolution processes, such as negotiation, mediation, and arbitration (Rabinovich-Einy, Katsh, 2014).

These attempts to mimic offline processes in online settings, however, encountered mixed success. In the late '90s and early 2000s, advancements in technology and investments in the field made it possible for ODR entrepreneurs to embed information management and data processing capabilities of ICT into dispute resolution systems, which added a novel and distinctive element to ODR (Katsh, 2006).

In the “entrepreneurial phase” of ODR, the role of ICT shifted from merely facilitating remote communication to effectively assisting parties in the resolution of disputes.⁴ The success of these systems has paved the way for the development of online processes that no longer mirror traditional ADR and their application to a broad range of disputes, including high-value claims and disputes arising offline. At the same time, ODR has also witnessed a geographical expansion beyond North America, where it had its initial uptake.

Experimentation and the steady development of ICT have made the use of online tools an increasingly appealing option to resolve certain classes of disputes in a cost-effective and expedited manner, both in the private and the public sector. Over the last decades, numerous dispute resolution providers started to invest heavily in the development of new technologies while sometimes benefitting from the support of institutions and official bodies. The endorsement of ODR by institutions and official

ked computer science departments to supercomputer facilities) in 1985 and funding research to develop high-performance networking for scientific and educational purposes.

³ The NCAIR itself supported three projects that relied on the Internet to resolve disputes: the Virtual Magistrate Project at Villanova University Law School, the Online Mediation Project (Mediate-net) at the University of Maryland, and the Online Ombuds Office at the University of Massachusetts.

⁴ The first applications date back to 1999 and pertain to the areas of e-commerce (the E-Bay dispute resolution scheme) and domain names (the ICANN non-binding arbitration system).

entities led some commentators to label the phase from 2001 onwards as the “institutional phase” (Conley-Tyler, Bretherton, 2003).

Recent advances in technology, and especially the use of AI-based algorithms and machine learning, provided the necessary data-based infrastructure for suggesting tailor-made solutions to the parties and identifying recurring patterns and systemic contributors to conflict (Katsh, Rabinovich-Einy, 2017). These applications of technology have expanded the potential for conflict management and dispute prevention functions of ODR systems, thus blurring the distinction between dispute resolution and dispute prevention goals typical of the offline world (Rabinovich-Einy, Katsh, 2014).

The current ODR landscape comprises a plurality of systems, each with characteristics and functions of its own. Such systems have created novel, accessible, and flexible dispute resolution avenues, with the potential to enhance access to justice and overcome the efficiency-fairness tradeoff. Users can now choose between a variety of dispute prevention and resolution systems, including hybrid online-offline processes, with different levels of technological complexity.

2. ODR: IN SEARCH OF A DEFINITION ODR

As institutions have begun to undertake regulatory efforts in the field, the complex and varied nature of ODR has confronted them with significant hurdles. This complexity stems from the combination of different elements within dispute resolution processes, such as the type of technology involved (whether synchronous, asynchronous, or blended), the resolution technique applied (automated or facilitated resolution), the origin of the dispute (whether offline or online), and the dispute resolution method used (whether mediation, negotiation, arbitration, *etc.*) (Lipsky, Avgar, 2006).

In particular, doubts arise regarding the function and degree of involvement of technology necessary to label certain dispute resolution processes as ODR (Wing, Draper, 2022). This uncertainty stems from the fact that there is no well-established definition of ODR nor is there uniformity of views in ODR literature regarding the distinctive features of ODR.

As a consequence, answers to questions such as “Is mediation conducted via commercial video conferencing software ODR? Is negotiation via e-mail ODR? Are online complaint forms ODR? Are court proceedings that rely on ICT ODR?” *etc.* may vary greatly depending on the perspective adopted.

Whereas the minimum common denominator of all forms of ODR is the use of ICT tools to resolve disputes, the label “ODR” should not be assigned lightly. The classification of a dispute resolution process as ODR has implications on the applicable procedural framework as well as on the assessment of whether or not a given dispute may be amenable to resolution through ODR.

2.1. Doctrinal views on ODR

The variety of ICT-enabled dispute resolution processes and methods available make ODR particularly elusive to define. While some commentators view ODR as “a new discipline of ADR” - namely, its online equivalent or evolution -, some others adopt a broader approach that views ODR as “a tool to aid existing methods of dispute resolution” (McMahon, 2005). Notions of ODR largely reflect

the attempt to demarcate between ODR as a standalone field and dispute resolution proceedings supported by ICT tools.

It must be noted that “ICT tools” do not necessarily mean internet-based tools. To account for the use of offline ICT, the terms “Electronic Dispute Resolution” (“eDR”) and “Technology-Mediated Dispute Resolution” (“TMDR”) were created (Larson, 2006; Orji, 2012). While “eDR” and “TMDR” have not gained popularity in literature, the acronym “ODR” is widely used by commentators and practitioners.

As a fact, the striking majority of dispute resolution processes rely on ICT systems that are partially or entirely online. To classify a dispute resolution process as ODR, some deem it sufficient that “the substantial part of communication takes place online” (Puurunen, 2003, p. 236), which also includes the possibility for hybrid processes comprising both online and offline elements (Goodman, 2006, p. 10; Sela, 2017, p. 646).

Broadly conceived, ODR may be seen as an umbrella term that covers both court proceedings (“court ODR”) and alternative dispute resolution processes (“informal ODR”) (Rabinovich-Einy, Katsh, 2021, p. 475).

The last two decades have witnessed an increase in the application of internet-based technology to court proceedings. In most instances, this translated into the implementation of electronic filing and case management systems to streamline court proceedings; in other instances, AI-based algorithms have been employed in court proceedings to perform several functions, ranging from information processing to advisory functions and outcome prediction (Reiling, 2020). The Covid-19 Pandemic further prompted courts and tribunals across the globe to use remote meeting tools and develop systems for the conduct of hearings (House of Lords Select Committee..., 2021; Thomson Reuters Institute, 2021).⁵ Courts that make extensive use of ICT means are referred to as “cyber courts” (Schultz, 2003).

The role of courts, however, is not only limited to providing a venue for litigation. Several legal systems have implemented court-annexed mediation and non-binding arbitration schemes (Kaufmann-Kohler, Schultz, 2004, p. 40). Whether cyber courts should be considered part of ODR ultimately depends on the definition of ODR adopted. If ODR is deemed to encompass out-of-court dispute resolution processes only, the concept of court-run ODR seems rather incongruous and almost illogical. Conversely, if ODR is deemed to encompass ICT-enabled dispute resolution at large, then the notion of court-run ODR gains legitimacy (Vermeys, Benyekhlef, 2012).

For the most part, however, literature conceives ODR in terms of out-of-court dispute resolution (Lodder, Zeleznikow, 2010; Van Arsdale, 2015). In this sense, ODR would constitute a spin-off of ADR and a way to complement out-of-court dispute resolution schemes with new, technology-enabled

⁵ Empirical studies conducted in several countries across the globe provide relevant data about the move to remote hearings in local and State courts. In the USA, for instance, a survey by the Thomson Reuters Institute found that 93% of respondents - including judges, court administrators, clerks, attorneys - were involved in conducting or participating in remote hearings in 2020, while 89% were doing so in 2021. Likewise, a Report of the House of Lords of the UK registered a fivefold increase in the number of remote hearings in England and Wales from late March to late April 2020.

capabilities (Wahab, 2004, p. 126; Farah, 2005). This interpretation is grounded on historical considerations and, in particular, on the development of ODR as a way to address low-value, high-volume claims for which existing dispute resolution instruments were unsuitable (Sela, 2017; Zeleznikow, 2020).⁶ So conceived, ICT does more than increase the efficiency of traditional dispute resolution methods: it creates a forum for dispute resolution of its own (McMahon, 2005).

Although ODR largely draws on ADR, the presence of technology in the process has given rise to new forms that hardly fall under the traditional definitions of ADR processes. Not all types of online processes are offsprings of ADR or have offline equivalents. Even processes that appear to largely mirror offline forms may not fall squarely into traditional categories due to the role ICT plays in the resolution and prevention of disputes.

Online arbitration, for instance, encompasses processes that lack some of the distinctive characteristics of its offline eponymous. Whereas (offline) arbitration refers to processes resulting in binding decisions enforceable by State authorities, the label “online arbitration” is often attached to dispute resolution mechanisms that are designed to resemble arbitration but do not result in final and binding outcomes (Kaufmann-Kohler, 2004, p. 28). Hence, the term “arbitration” does not fully reflect the nature of the aforementioned online processes, whose dynamics are largely comparable to arbitration but essentially devoid of its most defining features.

Online procedures often feature pre-dispute resolution stages that entail the filing of online forms with pre-populated questions and options to indicate the type of claim and preferred solutions. Although acknowledging the flexible nature of ODR, some scholars note that systems used to communicate and file complaints with online businesses should not be considered forms of ODR but rather “a business’ internal, customer handling system” (Shackelford, Raymond, 2014, p. 622). These forms have been widely used and proven particularly effective to resolve low-value large-volume claims in their early stages and are the result of the application of ICT in the area of dispute resolution.

Scholars have used the term “soft ODR” to designate tools and mechanisms with eminently preventative or facilitative functions in the resolution of conflicts (Edwards, Wilson, 2007). Because they are not meant to directly resolve disputes but rather to prevent them or facilitate their resolution once they have arisen, soft ODR processes can be viewed as “a supplement for [hard] ODR to build trust” (Wang, 2009, p. 25). “Hard ODR”, in turn, refers to procedures “intending directly to resolve conflicts”, such as online negotiation, mediation, and arbitration (Edwards, Wilson, 2007, p. 316).

This combination of different dimensions that fall on a human-technology continuum is at the roots of the complex and varied nature of ODR. While it is important to adopt clear and consistent definitions, it must be noted that descriptions of ODR processes cannot fully account for the rapidly-evolving nature of the phenomenon. Tools and methods, as well as the environment in which they

⁶ Parallels can be drawn between the development of ADR and ODR in that they both have their roots in the growing demand for accessible, efficient, and cost-effective dispute resolution mechanisms. While the access to justice movement and the dissatisfaction with the administration of justice led to the institutionalisation of ADR, the unsuitability of traditional dispute resolution processes to resolve a large number of low-value cross-border online disputes prompted the development of ODR.

are used, are likely to change in the near future. Hence, definitions and classifications must not be seen as monoliths but rather as fluid concepts that can be tailored to context.

2.2. Institutional Perspectives on ODR

Institutions have used different approaches to capture the essence of ODR. In this regard, two main orientations have emerged. The first relies on a functional approach and refrains from providing clear-cut definitions to ensure flexibility and adaptability. This approach was adopted - among others - by the EU legislator in the Regulation on consumer ODR, which describes the functioning and purpose of the so-called “ODR platform” without, however, providing a clear-cut definition of ODR.⁷

Recital no. 8 of the Preamble of the Regulation on consumer ODR reflects the functional approach of the EU legislator. By acknowledging that “ODR offers a simple, efficient, fast and low-cost out-of-court solution to disputes arising from online transactions” and that “there is currently a lack of mechanisms which allow consumers and traders to resolve such disputes through electronic means”, the EU legislator seems to define ODR to broadly encompass out-of-court dispute resolution mechanisms that variously rely on the use of technology.

Interestingly, the 2016 ADRAAC Paper on Online Dispute Resolution and ADR places great emphasis on the role of technology in ODR. On the one hand, ODR is defined as encompassing dispute resolution that “range from two-party negotiation to processes that include a third party whose role is to assist resolution through facilitative, advisory, or determinative approaches [and use] online, or internet and web-based technologies to assist in the resolution of disputes”. On the other hand, the Paper provides a detailed description of the functions that ICT may play within ODR procedures, namely (i) “support participants’ involvement in dispute resolution processes”; (ii) “resolve disputes by replacing human interventions”; and (iii) “have the capacity to change how offline ADR works”.

The second orientation highlights the importance of operational definitions to ensure clarity and consistency of application. This approach was adopted, for instance, by the ABA Guideline B-8 on Alternative Dispute Resolution and Online Dispute Resolution and the UNCITRAL Technical Notes on Online Dispute Resolution.

The commentary to ABA Guideline B-8 on Alternative Dispute Resolution and Online Dispute Resolution indicates that “[ODR] refers to a variety of ADR methods that take place entirely online, some involving a mediator and some involving only the parties”. Under this definition, cyber courts and online-offline hybrid procedures appear to be excluded from the scope of ODR.

Although acknowledging the variety of ODR processes available and the potential for new developments, the UNCITRAL Technical Notes provide a more detailed description of the required threshold for ODR. After defining ODR as “a mechanism for resolving disputes through the use of electronic communications and other information and communication technology”, the Technical Notes specify that ODR processes require an “ODR platform”, *i.e.* “a system for generating, sending, receiving, storing, exchanging or otherwise processing communications in a manner that ensures data security”.

⁷ Definitions are contained in Art. 4 of the Regulation on consumer ODR and do not include any definition of ODR.

Under the Technical Notes, the ODR platform becomes a distinctive feature of ODR which sets it apart from other forms of dispute resolution. In this, the Technical Notes recall Katsh and Rifkin's concept of ICT as the "fourth party" in the process (Katsh, Rifkin, 2001). The following section will examine the concept in greater detail and discuss its implications for the definition of ODR.

3. THE "FOURTH PARTY" AS THE DISTINCTIVE FEATURE OF ODR

The term "fourth party" was first introduced by Ethan Katsh and Janet Rifkin to describe the key role that ICT plays in ODR (Katsh, Rifkin, 2001). The expression echoes the concept of "third party", which is the common usage name for neutral parties in dispute resolution processes, and conveys the idea that ICT is an indispensable part of ODR in that it provides a structure and format for the parties to engage in dispute resolution (Katsh, 2004; Morek, 2006). So conceived, ICT is in all respect an actor in the process and may have a significant impact on the dynamics of resolution (Sela, 2017).

From this perspective, ODR is characterized by the necessary presence of a technology-based intermediary which coordinates agents and data to facilitate dispute resolution (Lodder, 2006). The notion of "ODR platform" provided by the UNCITRAL Technical Notes appears to mirror the construct of the "fourth party", which emphasizes the role of ICT as the element that sets ODR apart from other dispute resolution processes. In defining ODR platforms as "systems", the UNCITRAL Technical Notes set a more specific threshold for the use of ICT in ODR.

In particular, the language in the UNCITRAL Technical Notes suggests an understanding of ODR platforms as software specifically dedicated for dispute resolution. This interpretation would allow distinguishing ODR from other forms of technology-assisted dispute resolution and exclude from ODR all cases in which some ordinary commercial software is employed for conflict resolution. This has significant implications for the field, both in terms of theory and practice.

From a theoretical standpoint, the concept of dedicated dispute resolution technology settles the debate around the necessary threshold for ICT in ODR by distinguishing between commercial software used for dispute resolution purposes and platforms that are specifically designed for dispute resolution. Arguably, only the latter meet the threshold for ODR.

This view finds support in theories around the "fifth party" in the process (Lodder, 2006). The fifth party is not the technology itself but rather a "technical player" that provides the ICT system necessary for dispute resolution processes to take place. The fifth party (*i.e.* the ODR provider) delivers the fourth party and plays a unique role in ODR, as it contributes to shaping users' experiences in virtual environments (BoI, 2005; Gaitenby, 2006).

The term "ODR provider" has been used to describe both technology providers and service providers. Technology providers develop and outsource ODR platforms that service providers employ to deliver online dispute resolution processes. Whereas the role of technology providers is limited to the development and outsourcing of ODR software, service providers are directly involved in conflict resolution as they administer ODR platforms to offer dispute resolution services.

The role of the fourth party and its level of engagement can vary depending on the design of the dispute resolution process and the technology used. ICT can be more or less relied upon throughout the dispute resolution process, so there is no established threshold for the role of technology as the fourth party (Morek, 2006). Dispute resolution systems may rely on high technology - including AI - or less sophisticated tools and applications, such as e-mails, instant messaging, and video conferencing (Evans *et al.*, 2006).

Variations in the properties of the communication medium as well as in dispute resolution system design result in different levels of engagement of ICT in the process (Rainey, 2014). Depending on the degree of richness of the communication medium, scholars have identified two types of ICT systems: systems that rely on lean media (text-based) and systems that rely on rich media (*e.g.* video-conferencing). Such systems may also feature different levels of synchronicity, ranging from synchronous (*e.g.* live chat) to asynchronous communication (*e.g.* e-mails or audio-stream).

In some instances, ICT provides a remote venue for human-powered ODR processes that may also involve neutrals. In other instances, ICT also incorporates functions typically performed by neutrals, such as facilitating communication, clarifying interests, and generating options (Sela, 2018).

Based on the level of autonomy of ICT in the process, scholars distinguish between instrumental and principal ODR. Instrumental ODR includes ICT tools that may provide generic process orientation and create a dedicated remote venue where parties (including third parties) can access and exchange information (Sela, 2018). Whereas ICT in instrumental ODR has no decision-making functions and must be operated by a human party, ICT in principal ODR takes an active role in the process and performs third-party functions, such as clarifying the parties' interests, identifying trade-offs, priorities, and options for resolution, *etc.*

ODR providers may be individuals or institutions. The former are generally dispute resolution professionals who use ODR platforms to provide their services. In instances where the neutral also administers the ODR platform, the third and fifth parties overlap. These service providers have also been described as "independent providers" (Sela, 2018).

This wide range of possibilities blurs the boundaries between the roles and functions of different actors in the dispute resolution process. In light of this, some commentators prefer to classify dispute resolution processes based on the functions performed by ICT in relation to any human party involved (Hörnle, 2003). Whereas the spectrum of ADR processes is constructed around the presence and function of the third party, processes that rely on ICT fall on a human-technology continuum (Wing, 2021, p. 53; Wing, 2022).

As a result, it may prove difficult to draw clear-cut distinctions between ODR as a standalone phenomenon and ADR processes that rely on ICT tools. From a practical standpoint, articulating the scope and boundaries of ODR is key to the development of regulatory standards and accountability systems for ODR processes and parties involved. This, in turn, requires attention to the entire range of processes that may be considered ODR as well as the flexibility to adapt to changes in ICT (Wing, 2022, p. 39).

Combined, conceptualizations of the fourth and fifth parties set clearer standards for distinguishing between ODR, where technology acts as the fourth party, and ADR processes that employ ordinary commercial software or make isolated use of technological means (*e.g.* e-mail or videoconferencing) for conflict resolution purposes. The concept of ODR platform intended as “dedicated dispute resolution technology” is key in this respect.

It follows that parties trying to solve their dispute through ordinary e-mail exchanges should not be labelled as ODR nor should the e-mail provider be equated with an ODR provider. Although used for dispute resolution purposes, ordinary e-mail software is not dedicated dispute resolution technology and thus cannot be considered a fourth party in the process. Likewise, human mediators availing themselves of video conferencing or other ordinary commercial ICT should not be considered independent ODR providers.⁸

Although the dispute resolution process may take place entirely in a virtual environment, such use of ICT does not meet the threshold for ODR because it does not involve dedicated dispute resolution technology. Hence, where ICT in ODR is understood as dedicated dispute resolution technology, ordinary commercial ICT used for dispute resolution purposes does not amount to a fourth party in the process.

The function of the Process	Soft ODR <i>preventative/facilitative function</i>	Hard ODR <i>dispute resolution function</i>	
Role of the 3rd Party	No neutral involved	Facilitation/Evaluation	Adjudication
Role of the 4th Party	Instrumental ODR <i>generic process orientation</i>	Principal ODR <i>third-party functions</i>	
Degree of Involvement of the 4th Party	Fully online DR	Offline-online Hybrid	
Type of Technology	Media Richness		
	Lean Media <i>can hardly convey contextual cues</i>	Rich Media <i>can replicate contextual cues</i>	Artificial Intelligence <i>knowledge-based systems</i>
	Interactivity		
	Asynchronous <i>delays between transmissions</i>	Semi-synchronous	Synchronous <i>simultaneous transmission</i>

The table below provides a graphic illustration of the levels of interaction and elements involved in ODR. A table, rather than a continuum, appears to be the most suitable way to represent the spectrum of ODR, as it allows for different combinations and levels of engagement of ICT and human actors.

⁸ Some scholars maintain that dispute resolution professionals who avail themselves of ordinary software to conduct the process can be labelled as “fifth parties”. This view, however, does not seem to take into account the distinction between ordinary software and the fourth party as described above.

Further, by referring to process functions rather than specific dispute resolution processes, the table offers a flexible framework that can accommodate new forms of dispute prevention and resolution.

4. CONCLUSIONS

Limitations in face-to-face interactions due to the Covid-19 Pandemic have boosted the use of ICT in judicial and extra-judicial dispute resolution. Against this backdrop, dispute resolution processes that employ ICT have been indistinctly labelled as ODR, which became an umbrella term devoid of univocal meaning. As ODR proponents have started to advocate for a coherent regulatory framework, setting a minimum threshold for ODR appears timely and necessary for the elaboration of context-specific standards and best practices.

The understanding of the “fourth party” as dedicated dispute resolution technology allows distinguishing between ADR, which relies on ordinary commercial ICT tools, and ODR, where the use of dedicated dispute resolution technology adds novel features and functions to the process. Labelling any process that employs some form of ICT as ODR may lead to the paradoxical consequence of limiting the scope of ADR to out-of-court dispute resolution processes that do not rely on ICT at all.

Nowadays, it is hard to imagine that any ADR process would take place without relying on at least some form of ICT, such as clouds for the storage of documents or e-mails. In most instances, the use of such software does not require any specific training nor does it entail the development of advanced skills. Conversely, where ICT amounts to a fourth party in the process, the increased potential and capabilities of dedicated dispute resolution technology give rise to a standalone phenomenon that requires additional caution in terms of training of professionals, guidance for users, and procedural standards.

The intrinsic complexity and steady growth of ODR warrant the adoption of a specific framework for the study of this area of dispute resolution. Such framework should acknowledge the distinctive features of ODR and account for the multi-levelled interactions between technology and human actors. This contribution proposes a definition of ODR as “out-of-court dispute resolution processes that are partially or entirely conducted through the use of online platforms specifically created for dispute resolution purposes”.

By setting a minimum threshold for the use of ICT in ODR, the definition herein outlined provides an indicator of where ODR begins but does not, however, offer insight into where ODR ends. The advent of sophisticated ICT systems and AI-based algorithms has introduced novel ramifications that further challenge attempts to conceptualize ODR and define its boundaries. In light of the infiltration of AI into dispute resolution, additional research is needed on the relationship between ODR and AI and the implications of the latter for the theory and practice of ODR.

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