

Annual Review of Law and Social Science

Online Dispute Resolution and the Future of Justice

Colin Rule

Tyler Technologies, San Jose, California 95124, USA; email: colin.rule@tylertech.com

Annu. Rev. Law Soc. Sci. 2020. 16:277–92

First published as a Review in Advance on
May 13, 2020

The *Annual Review of Law and Social Science* is online
at lawsocsci.annualreviews.org

<https://doi.org/10.1146/annurev-lawsocsci-101518-043049>

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Keywords

online dispute resolution, ODR, mediation, negotiation, resolution, redress, alternative dispute resolution, ADR

Abstract

Technology is changing the way we interact with each other, which in turn is changing the way we resolve our disputes. Every society throughout history has crafted social institutions to resolve problems fairly and consistently, and that is true also for the online society we are building on the Internet. Online dispute resolution (ODR) is the study of how to effectively use technology to help parties resolve their disputes. Originally crafted by companies like eBay to promote trust in eCommerce, ODR is now being integrated into the courts to expand access to justice and reduce costs. With the expansion of artificial intelligence and machine learning, ODR has the potential to become the new default for fast and fair resolutions, but there are many questions that still need to be answered, and much potential for fraud and abuse. In this article, I explain the need for ODR, provide a short history of its evolution, outline a rubric for building ODR systems, share some case studies demonstrating its use, and describe some ethical dilemmas that could accompany its expansion.

1. TECHNOLOGY IS CHANGING THE WAY HUMANS INTERACT

If you look around, it is hard to deny that technology is sparking major transformations in the way humans interact with each other. Thinking back just two or three decades, our lives were very different than they are today. In the twentieth century, geographic limitations dictated almost entirely who we interacted with each day and what activities filled our daily lives. Now in the twenty-first century, global networks enable us to interact with anyone anywhere in the world with just a few swipes of our fingers on the screen of a mobile phone. Technology has flattened the limitations of time and space, and we will never go back to the way it was before.

Using technology for communication is now commonplace in both our personal and professional lives. Millennials find it hard to imagine how people got anything done in the days before we could text, videoconference, or surf the Internet. How did we find people at the airport? How did we figure out the latest conversion rate from pesos to dollars? It is getting hard to remember how we managed (Larson 2003). Marc Andreessen (2011), one of the inventors of the modern web browser, predicted that software was going to eat the world, and every day there is new evidence that his prediction is coming true.

One area that is being rapidly transformed is the way that people resolve disagreements and disputes. Most people use technology tools to complete the items on their to-do lists every day, so they now expect that they will also be able to draw upon them to resolve any problems that they encounter. From minor annoyances with eCommerce purchases to parking tickets to restaurant reviews, technology is already making it easier to find solutions whenever a problem crops up. Now technology is being used to handle more complex emotional disputes, like workplace issues or divorce and custody cases, or higher-value disputes, like civil or commercial matters. Just like finding people at the airport, we will never go back to the way it was before.

This development represents a significant opportunity to expand access to justice. In the past, many people did not bother to pursue redress for minor annoyances because they sensed that the resolution process would be more of a headache than a fair resolution was worth. But now that technology has made pursuing redress easier and more convenient, the calculation has changed, so more people are deciding that they want to pursue resolution. Some of this opportunity to expand access to justice exists within traditional resolution forums, like the courts, but new options are also arising within the private sector. All societies need to provide their citizens access to just means to resolve disputes, and as our society moves online, the opportunities to provide that access through technology are multiplying. Citizens now expect that they will be able to leverage technology to resolve disputes efficiently and effectively 24/7, because that is the level of responsiveness they already enjoy on websites like Amazon and Google.

But it is not only that technology is providing options to resolve the same kinds of problems that we have always experienced. Technology is also creating whole new categories of disputes we never experienced before. Previously, if we wanted to buy an item, we had to get into our car and drive down to a store to buy the item in person. Now we can buy an item from any seller anywhere in the world using the Internet, which makes the scope of potential disputes much more complicated. You can imagine if a buyer is in one country and a seller is in another country, and the marketplace that they are using to facilitate the transaction is in a third country, then trying to figure out what legal jurisdiction applies is a very complicated challenge. Existing judicial models for resolving problems are highly dependent on geographic location, because geographic location dictates the legal jurisdiction of the resolution process. But the Internet blurs geographic location and makes jurisdiction much more complicated to figure out, which means the existing models do not work very well.

What we need is a justice system that works the way the Internet works. In the future, resolution processes should not be dependent on geographic location, because the Internet makes

determining a precise location for each interaction almost impossible. We need to design a new justice system that works at the speed of technology, enabling fast and fair resolutions anywhere within the reach of the Internet.

2. TECHNOLOGY IS CHANGING THE LAW

Many professions have been transformed by technology. If you think back to the 1950s, the practice of medicine was very much a hands-on discipline. Doctors trained at the side of other experienced doctors and then took their lessons learned forward into their future cases. There was not much sophisticated technology involved in the daily treatment of patients 70 years ago. Today, however, technology is omnipresent in the practice of medicine. We have X-rays and CAT scans and ultrasounds, as well as laser and robotic surgery. A doctor from 1980 would probably be very confused if they dropped into an operating theater in 2020 because technology has transformed the practice of medicine so significantly. The same is true in the world of finance. Stock trades used to be executed face-to-face on the floor of the stock exchange by people holding little slips of paper calling out their orders. Now financial markets operate at the speed of light with computers conducting trades in milliseconds. A stock trader from 1980 would be amazed to see the trading floors empty in 2020, replaced by server farms conducting millions more trades in seconds.

But even as technology has transformed those professional fields, the fields themselves did not go away. The introduction of technology increased the efficiency and effectiveness of those fields, but it did not replace the role of humans—it just changed their role. Now there are even more people employed in the fields of medicine and finance than there were before technology was introduced at scale, but people are managing the technology instead of handling all the tasks by hand.

This kind of transformation is now coming to the law. The law has not changed as much as medicine and finance over the last 50 years. Technology has encroached around the edges of legal practice in areas like electronic filing, research, and case management, but the actual courtroom process still looks very similar to what it looked like back in 1980. A lawyer plucked from 70 years ago and dropped into a modern courtroom could probably still do an adequate job. Part of the slow speed of change is a result of the legal monopoly. Bar associations have the exclusive authority to train and certify new lawyers, which enables them to have an unprecedented amount of control over the overall legal field. This has enabled the law to be more successful in fending off technological disruption. However, this control now appears to be coming to an end. Technology is now starting to disrupt the law.

These changes are not being driven primarily by lawyers, bar associations, judges, or court administrators. They are being pushed most significantly by the disputants and litigants themselves. Because citizens utilize technology in almost every area of their lives, they now expect that when they encounter a dispute or file a lawsuit, they will have access to similar kinds of tools to help them manage that process. Also, the long delays that are routine in the judicial system are out of sync with the fast pace of life in our newly digitized society. Disputants now demand faster, cheaper, and more efficient resolution processes that deliver outcomes in days or weeks instead of months or years. They are no longer willing to pay large retainers and be billed by the hour to resolve their cases over a long period of time. And technology is giving them the means to push for the kinds of changes they want.

3. CHALLENGES FACING THE LEGAL SYSTEM

In addition to this pressure from clients, the legal system is also suffering from several crises that are accelerating the move toward digitization. One is a very high rate of self-represented litigants,

or SRLs. Many of the people who come to the court system these days do not have the money to be able to afford representation from a competent attorney (Dyer 2018). These individuals elect to self-represent even though they do not have any legal training. The court system was designed to be navigated by individuals who understand its complex processes and specialized language. It is not immediately apparent to SRLs what steps they need to take or what documents need to be filed at each stage of the judicial process. When SRLs come into the court and start asking questions about what they should do in their legal case, court administrative staff and legal librarians are often reluctant to give them too much information or assistance for fear that they will be accused of providing legal services without having the appropriate qualifications to do so. SRLs also get on average much worse outcomes than litigants who are represented by attorneys (Lucas 2017). Many courts report that 50–60% of new cases are coming from SRLs, which creates frustration on the part of the litigant and administrative costs for the court in handling those cases (Knowlton 2016, Natl. Cent. State Courts 2019b).

Many court systems are also seeing their budgets cut by state legislatures. Politicians are tasked with balancing many competing priorities when they make budget decisions, and when resources are tight the funds allocated to the courts are increasingly being reallocated to matters considered more pressing. In the state of California, more than \$600 million has been cut out of court budgets over the last 10 years, which has forced courts to reduce services and eliminate many administrative positions, compounding the dissatisfaction felt by citizens (Kozak 2011).

Many law schools are reporting that it is harder for recent graduates to find paying positions in the law than it was 10 or 20 years ago (Miller 2019). To save costs, some law firms have outsourced their entry-level work to less-expensive employees and contractors in other parts of the world (Kane 2019). Many recent law school grads, unable to find employment doing legal work, transition to working in other industries soon after graduation. Leaders in the legal community argue if there are so many young lawyers looking for work, and there are so many SRLs looking for representation, why can't we just connect these two groups to make the overall system work more effectively? But the challenge is that lawyers, even young lawyers who are early in their practice, are still more expensive than what many SRLs can afford to pay. It is no longer true that access to justice is synonymous with access to lawyers. We need to find new ways to help litigants get access to just resolution processes so they can work out their problems quickly and definitively, and the solution is not going back to the way things worked before the Internet.

4. THE EXPANSION OF DISPUTE RESOLUTION

These challenges around access to justice are not new. In the 1970s, a grassroots movement arose in the United States to expand access to fast and fair resolutions for citizens. It was called alternative dispute resolution, or ADR. Growing out of decades of work in the labor-management field around resolving labor disputes, activists introduced ADR to provide fair resolutions to low-value disputes outside of the courthouse (Amsler 2017). The ADR movement grew and matured over the next few decades, transforming the justice system and expanding into other kinds of disputes. In 1977, a Harvard Law School professor named Frank Sander gave a speech on expanding access to justice in which he described a new vision for a “multidoor courthouse” offering a variety of appropriate resolution pathways for individual dispute types (Moffitt 2006). When a potential litigant came up to this new multidoor courthouse, instead of being ushered directly in front of a judge, they would be asked what kind of dispute they were experiencing. If they said they had a family dispute, for example, they would be directed to a process (“door #1”) specifically designed for family cases. If they indicated they were experiencing an intellectual property dispute, they could be pointed toward a different process (“door #5”) specifically crafted for intellectual property matters.

This vision of a courthouse with multiple pathways to justice was a radical concept at the time, but the wisdom of Professor Sander's recommended approach quickly gained traction, and it transformed the provision of justice in the United States over the next few decades. Sander & Goldberg's (1994) idea of "fitting the forum to the fuss" freed judicial dispute system designers to think about what process designs would best meet the needs of each individual case type instead of designing a one-size-fits-all courthouse. For instance, over the next few decades, the family courts embraced the concept of mediation as a better way to resolve custody and separation cases than the traditional litigation model, and now mediation is a mandatory component of family courts across the United States.

5. MARRYING TECHNOLOGY AND DISPUTE RESOLUTION

Online dispute resolution (ODR) arose in the late 1990s as an outgrowth of ADR. It focuses on how to best use information or communications technology to help disputants resolve their disputes (Katsh & Rifkin 2001). Initially ODR was designed to resolve disputes that arose online between two strangers who probably would never meet face-to-face. eCommerce marketplaces like eBay realized they needed to provide a fast and fair way for their users to resolve disputes to encourage people to trust online purchases (Ebner 2012). Companies like eBay and Amazon and payment providers like PayPal invested tens of millions of dollars into the design and launch of ODR systems that could efficiently scale to handle many millions of disputes. By 2010, eCommerce companies were resolving tens of millions of these kinds of cases each year with ODR software (Schmitz 2016).

ODR initially grew out of eCommerce, but it was a short hop from online consumer issues to face-to-face consumer issues. Also, disputes did not only arise in online purchases of tangible goods; disputes also arose in online purchases of services. Any online marketplace experiences a volume of disputes, from ride-sharing companies like Uber to housing-sharing companies like Airbnb. Online service marketplaces like TaskRabbit and Upwork also experience disputes. Each of these technology companies built their own ODR system for resolving problems that arose, and that led to a wave of innovation in the ODR space. But off-line companies also realized they needed efficient ways to resolve problems if they wanted to improve customer loyalty, so they started utilizing ODR for their case volumes as well.

eBay built a piece of software called the Resolution Center, which enabled individual users to report any problems they encountered and to track each individual case all the way through to resolution (Rule 2008). This worked very well inside the "walled garden" of eBay and PayPal, because there was complete visibility into all of the transactions in the marketplace, as well as absolute enforcement ability in moving money from one user to another appropriate to any outcome achieved in the ODR process. But it was clear that many other case volumes outside of eBay's walled garden could also benefit from a Resolution Center, so in 2011 eBay spun out the Resolution Center software so it could be applied to other case volumes. One of the early applications was property tax assessment appeals. When a local tax assessor notifies a taxpayer of the assessed value of their property and the tax owed for that property, the taxpayer has a legal right to appeal the valuation to lower their tax bill (Rule & Wilson 2015). Resolution Centers very similar to the one built on eBay made this process more discoverable, efficient, and convenient.

Another area that proved to be a great fit with ODR was insurance cases. Sometimes a medical service provider and an insurance company disagree about how much money should be reimbursed for a treatment received by a policy holder. Resolution Centers enabled medical service providers and insurance companies to quickly negotiate and resolve these disagreements to keep these insurance reimbursement matters out of the courthouse. When these cases went into a court, they

would often take three to five years to be resolved, but when they were handled through ODR, they were resolved in an average of three to five months (*PR Newswire* 2014).

6. DEVELOPING INTERNATIONAL FIRST

The ADR movement arose on a grassroots level, as activists set up community mediation centers in individual neighborhoods to facilitate conversations between neighbors. ADR grew from neighborhood centers into the courthouses and eventually into higher-value commercial cases. The rollout of ODR happened in the opposite direction. ODR arose on the international level first and then was adopted down into each country. These high volumes of low-value cross-border disputes within marketplaces like eBay and Amazon were so out of sync with the court system that they required a new resolution process specifically built to resolve them. Technology companies pushed the creation and evolution of ODR because they needed to have a justice system for their users, because the existing justice system could not work for those cases. The private sector rapidly innovated around ODR to solve this problem.

International organizations eventually took the cue from the technology companies and led the push for the expansion of ODR. UNCITRAL (UN Commission on International Trade Law), the UN agency responsible for harmonizing global laws, created a working group on ODR in 2010 that convened representatives from more than 66 countries to discuss how ODR could be utilized to provide fast and efficient redress in cross-border consumer matters. The European Parliament passed a regulation in 2015 that required all professional sellers to inform their buyers about ODR. Now the International Standards Organization is leading an effort to make ODR available for all global eCommerce purchases. ODR is now the default resolution process for global eCommerce, but widespread adoption within individual countries is in development.

7. ONLINE DISPUTE RESOLUTION MAKES ITS WAY INTO THE COURTS

In retrospect, it was probably inevitable that ODR would eventually make its way into the court system. Just like the quote from the criminal who says he robs banks because “that’s where the money is,” in the United States most intractable disputes eventually find their way into the court system. Unlike the eCommerce marketplaces that first pioneered ODR, courts are not subject to competition. Courts are invested with unique authority to decide cases and enforce outcomes even if one of the parties does not agree to participate. This monopoly on enforcement means that if an individual litigant wants to get their outcome enforced against the will of the counterparty, they really have no choice other than to resort to the court process. This also means that the courts do not have much of an incentive to evolve and refine their processes to prevent their customers from jumping ship and going somewhere else. Because the courts are the only game in town, there is no “somewhere else.” Courts are not subject to the same kinds of competitive pressures that incentivize private companies to rapidly evolve and innovate (Rigertas 2014).

But the younger generation is not willing to participate in processes that require in-person attendance, the filing of paper forms, and delays over months or years. Many off-line systems that have worked efficiently for decades have been disrupted by millennials using technology to build a new system that they feel more effectively meets their needs (for example, the taxi associations being challenged by ride-sharing companies like Uber and Lyft) (Edwards 2014). The monopoly the courts enjoyed created a risk that they would become complacent, so they would not effectively innovate and update their systems to keep up with evolving user expectations. As evidence of that trend, over the past decade courts have seen their filing volumes slowly decline, even though the

volume of commercial and consumer transactions in society, powered by technology, has grown steadily (Hector 2016). This has led some leaders within the courts to be concerned that they are slipping into a “spiral of irrelevance,” where the disconnect between the solutions they offer and the expectations of citizens steadily drives cases away from the courts and into other newly available forms of redress being developed in the private sector.

The successes in launching and scaling ODR demonstrated how technology might help to modernize the courts. Almost 90% of adult US citizens access the Internet each day (Anderson et al. 2019). It used to be that only high-income people had access to the Internet, because accessing the Internet required expensive broadband connections and expensive laptops or computers. But now the explosion of low-cost mobile technology, combined with cheap access to the Internet through cellular networks, has made cost-effective access to online services much more common. Learning from ODR, legal service providers and courts realized that they could leverage the Internet and mobile technology to significantly expand access to justice for people at every level of income and education. Software could help parties understand their options, eventually directing them into appropriate channels to achieve a fair resolution for each individual case, like a digital version of Sander’s multidoor courthouse. Leaders in the legal service space began explicitly citing the traction achieved by global eCommerce ODR systems as a blueprint for the future of civil justice (Steiner 2015).

8. GLOBAL LEADERSHIP LEADING TO TRACTION IN THE US COURTS

Courts in the United States were slower to realize this potential than courts in some other parts of the world. Countries like Singapore and the Netherlands demonstrated an early willingness to experiment with ODR technology in the early 2000s, and in 2014 an advisory committee in the United Kingdom called on the Ministry of Justice to create a new all-online court built on ODR to resolve low-value civil cases (CJC ADR Work. Group 2018). China has invested in the creation of several Internet courts, which leverage cutting-edge technology to streamline the court process, resolve cases over video-based hearings, identify users with facial recognition, and optimize resolutions via mutual agreement through ODR (Xia 2018). Up until 2015, most of the innovations in court technology were taking place outside of the United States, but around 2016 leading thinkers in access to justice started to pay more attention to ODR, and several high-profile pilots finally brought ODR into the US courts. In 2017, the Pew Charitable Trusts announced that they would spend more than \$100 million to promote the expansion of access to justice using technology, with ODR featuring prominently in their plans (Pew Trusts 2019a,b). The National Center for State Courts (NCSC) similarly began a series of efforts to document best practices in ODR for the courts and to consult with various court jurisdictions around the country on the design and deployment of ODR systems (NCTDR 2018). This led to a flowering of ODR within the US courts. By the end of 2019, more than 50 courts in the United States had deployed ODR in one or more of their caseloads, and that number is predicted to double again by the end of 2020 (Natl. Cent. State Courts 2019a).

Some courts built ODR processes with preexisting software, such as the Modria platform from Tyler technologies (<https://www.tylertech.com/products/modria>) or the Matterhorn platform from Court Innovations (<https://getmatterhorn.com/>). Other courts, such as the Utah State Judiciary, decided to build their own technology from scratch (Himonas 2018). Some ODR programs targeted transactional case volumes like debt collection or small claims, whereas others targeted more emotional or relational disputes like family divorce and separation or workplace matters. In 2019, Pew and NCSC selected three teams of academics to conduct longitudinal

studies of several of these court ODR programs to determine not only the satisfaction experienced by participants but also the durability and fairness of outcomes achieved over the longer term (Pew Trusts 2019a,b). This set the stage for even faster growth once the benefits of ODR were quantified through empirical research.

9. OVERVIEW OF HOW ONLINE DISPUTE RESOLUTION WORKS

Most court ODR processes are designed to be a simple problem-to-solution workflow. When a complainant initiates the ODR process, the software asks what kind of problem they are experiencing and offers a menu of common problem types. The complainant then selects the type of problem they are experiencing from the menu. If an option describing their specific problem is not available in the menu, they can click “other” and then detail their situation (and later the system administrator can add that option to the menu so future users can select it). Once the complainant has selected the type of problem that they are experiencing, they are given a list of some common solutions to that specific problem, and then they are asked which of these solutions would be acceptable to them. The user may pick several of the offered solutions that are acceptable, and they can also customize those solutions around their preferences. The complainant then is also given an opportunity to provide whatever evidence or information they would like to help bolster the case for the solution that they are requesting.

The respondent is then contacted and informed about the problem reported by the complainant and the solutions proposed. The respondent then has an opportunity to indicate if any of the proposed solutions would be acceptable to them, and they also have an opportunity to customize those solutions into a counterproposal. This technology-facilitated negotiation can help parties quickly define the specific problem that they are dealing with and generate several promising candidate solutions to resolve that problem. It can also help to avoid some of the more confrontational strategies that parties may utilize to create leverage that they can use to push the other side to accept their desired solution.

10. THE DIAGNOSIS, NEGOTIATION, MEDIATION, EVALUATION, AND APPEAL MODEL FOR ONLINE DISPUTE RESOLUTION

A common template for designing ODR processes is called the DNMEA model, which stands for Diagnosis, Negotiation, Mediation, Evaluation, and Appeal (Schmitz & Rule 2018). These components work like building blocks in putting together an appropriate resolution process for an individual dispute type. The first two components (Diagnosis and Negotiation) are powered by software, whereas the latter three components (Mediation, Evaluation, and Appeal) are powered by humans. Systems designers can use them to build resolution pathways that promote early resolution and optimize the engagement of human neutrals. Let us examine each of these modules individually.

10.1. Diagnosis

Diagnosis is the first phase of the ODR process in which the parties, assisted by software, can educate themselves about the specific nature of problem they are encountering, learn about resolution options, and review data around likely settlement types. Surveys and intake forms can help to gather relevant information from each party that can be used to triage the case into an appropriate resolution pathway. The emotional journey of the disputants, including their own expectations around resolutions and case value, can be supported during this phase of the resolution process. It is also possible in the diagnosis phase to share data extracted from the

platform around resolutions achieved in similar kinds of cases, which can help parties build reasonable expectations for what a fair resolution to the matter would look like. For example, if a complainant was reporting a landlord–tenant dispute over the return of their security deposit, the software could look into the database at all of the resolutions to similar types of cases that were achieved over the past three years, and then present that data to the complainant in a graph that would help the complainant understand the likely resolution range for their case.

In most face-to-face mediation, there is not an opportunity for the mediator to communicate with the parties at such an early stage in their case. Often face-to-face mediators get access to the dispute only after the parties have negotiated for an extended period and reached a frustrating point of impasse. That frustration is what motivates them to request the assistance of the mediator. In ODR, however, the complainant may actually search out advice via a search engine like Google in advance of even notifying the respondent of their concern, which creates enormous opportunities to help shape expectations and to sketch out the ZOPA (zone of potential agreement) before the negotiation even begins. ODR opens an opportunity to assist disputants that is almost entirely unavailable in face-to-face dispute resolution. In fact, some disputes can even be resolved early enough in this diagnosis phase so that the complainant does not even feel the need to notify the respondent of their concern. Dispute resolution research has demonstrated that early resolutions are the most effective form of dispute resolution, and that dispute prevention is more satisfying to the complainant than a resolution achieved through mediation or arbitration (Lande 2015). That is why problem diagnosis offers such promise for ODR systems.

10.2. Negotiation

Negotiation is the most common form of dispute resolution in the world. We negotiate with our coworkers, with our spouses, with our children, and even with other passengers on the subway almost every single day. Negotiation is an omnipresent fact of life, because people’s interests inevitably clash (Prossack 2018). Most of us think we are quite good at negotiation, but negotiation research reveals that many common instinctual negotiation strategies (such as bullying, intimidation, or misrepresentation) in fact generate worse outcomes over time (Vozza 2014). The goal is to build systems for negotiation that help parties look beyond their positions to their underlying interests, replacing distributed fixed-pie negotiations with integrative value-creating negotiations that expand the pie and generate better outcomes for all participants. There are many ways that technology can assist and facilitate negotiations to make them more effective and more value creating. Some of these approaches involve game theory, where the design of the software carefully structures the process to leverage party self-interest to promote effective resolutions.

For example, envision a simple monetary negotiation between two parties. In a standard negotiation, one party will put an offer on the table for a payment that they would accept to close the case. In response, the other party will make a counterproposal that they perceive to be more in their interest. The parties will then go back and forth, making slight adjustments in their offer to hopefully converge upon a mutually agreed-upon settlement amount. Sometimes these negotiations can seem interminable, as neither party wants to give in too easily, so they make tiny offers to slow the process. Negotiation theorists (like John Nash) (*The Economist* 2016) have described certain equilibrium points where neither party is incentivized to make an additional concession even though there is a better outcome for the parties that they cannot achieve because they are stuck in equilibrium. This inefficient process of “salami slicing” can go on for a long period of time and generate frustration among the participants.

Technology can streamline these processes through game theory (Dabboussi 2018). For example, the complainant can enter an amount they would be willing to accept to close the matter in

question, but then also be asked to confidentially provide the lowest amount they would be willing to accept to close the case (sometimes referred to as their “reserve price”). The respondent can then in turn be asked if they are willing to pay the full requested amount from the complainant to resolve the matter. If the respondent is not willing to pay the full amount of the complainant’s request, they can be asked for a lower amount that they would be willing to pay to close the case. If the amount entered by the respondent is higher than the reserve price entered by the complainant, the case can automatically be resolved at the amount specified by the respondent. In a two-party face-to-face negotiation, the complainant would never inform the respondent of their reserve price, because it would give their counterparty too large an advantage. But because technology can gather that information from the complainant and keep it confidential, ODR can utilize technology-assisted negotiation to enable a rapid resolution that would be impossible to achieve in an unmoderated two-party direct negotiation (Rule 2000).

10.3. Mediation

Mediation is a process in which a neutral third party joins a negotiation to assist the negotiating parties in reaching an agreement through mutual acceptance. A mediator has no decision-making authority in finding an outcome to a dispute. For any outcome to be achieved in a mediation, both of the parties must accept the proposed solution. What a mediator can do is use their authority as a third-party neutral to design and manage a process that helps the parties listen to each other, brainstorm possibilities, and draft a mutually acceptable agreement (FindLaw 2019).

There are many ways that technology can help mediators be more efficient and effective. First, technology can enable parties to communicate asynchronously via text as opposed to synchronous face-to-face interaction. This can give the parties a bit of cooling distance that enables them to be more reflective and thoughtful in their communications with the other party. It can also enable disputants to do a little research before they respond to a message from the other side, which can help them be more informed and increase the likelihood that any resolution achieved will not be predicated upon false or erroneous information. Asynchronous communication can also enable mediators to participate in multiple conversations at the same time, enabling them to have a private caucus conversation with each party individually at the same time both parties and the mediators have a joint discussion. This can enable the mediator to clarify issues individually with parties that may be blocking resolution and to reality test proposed outcomes in private while also encouraging private progress in the joint session.

ODR technology can also enable mediators to reframe communications between the parties in real time, even potentially before a message is read by the other party, which can help parties be at their best and avoid unnecessary escalations or provocations. Asynchronous communication can also make it harder for parties to prevent the other side from saying everything that they need to say for fear of censure or interruption; it also means that the mediator is not tasked with constant and ongoing administrative responsibilities (e.g., scheduling times that parties can get together and sending out reminders), which enables the mediator to focus their energy squarely on the areas that most deserve the mediator’s focus, like apologies, empathy, and active listening (Rule 2000).

10.4. Evaluation

Evaluation is the process that is most commonly delivered within the court system. In this process, a neutral third party listens to the arguments from the two disputants and then renders a decision around what a fair outcome would be to the matter at hand. This phase is sometimes referred

to as arbitration, but arbitration implies a certain level of enforceability and a binding nature to the outcome that is not always necessary in every case. Sometimes a third-party evaluation can be nonbinding, and the disputants can then discuss the evaluator's proposal and customize it to reach a mutually agreed-upon resolution. Evaluated outcomes from the courts are backed by the enforcement power of the judiciary, but that level of enforcement is not always necessary in every case.

One possibility that technology enables is the idea of crowdsourced evaluative processes, where instead of a single evaluator the case could be evaluated by dozens or even hundreds of neutral third parties, with their outcomes aggregated into one resolution to the dispute in question. eBay offered a resource called the Community Court, where buyers and sellers could bring their dispute to a neutral, crowdsourced process in which a panel of independent and unaffiliated eBay community members would evaluate the arguments from each party and individually indicate what they thought would be a fair resolution (Rule & Nagarajan 2010). Whichever party won a majority of the jurors won the case, and eBay would enforce the outcome appropriately. This kind of fusion between e-democracy and justice would not be possible in the face-to-face world: There is no way 200 individual jurors would each come down to a courthouse to listen to the arguments from each side and render a decision in an eCommerce case worth only \$50 or \$75. But the efficiencies of technology make crowdsourced ODR much more feasible.

10.5. Appeal

Appeal processes often work similarly to evaluative processes, but dispute systems designers can creatively utilize appeals to increase the trustworthiness and procedural justice of their ODR system designs. For example, a crowdsourced or algorithmic resolution process could deliver outcomes at scale to large numbers of cases, and in the majority of those cases those outcomes may be acceptable to the parties. But for the smaller percentage of cases in which the parties are not satisfied with the algorithmic or crowdsourced outcome, those parties could have a right to request a human-powered appeal to examine the particulars of the case in question and affirm or revise the evaluative outcome generated by the algorithm or crowdsourced approach. In this manner, the efficiency of the overall ODR design can be maximized while still providing a more in-depth human-powered examination upon request.

11. THE FOURTH PARTY

One of the key concepts in the ODR field is the concept of the fourth party. First named by Katsh & Rifkin (2001) in their seminal book, *Online Dispute Resolution*, the fourth party is a metaphor that gives technology a seat at the table alongside the other parties: party one and party two (the disputants in an individual case) and party three (the human neutral, either an arbitrator or a mediator). The fourth party is a way to conceptualize the role of technology in assisting the resolution of a case by giving ODR a seat at the table alongside the human parties. (You may picture it as a friendly looking robot if you like, but it could just as easily be a disembodied service running in the cloud.)

At present, the fourth party may be capable of only some very simple tasks, such as sending out reminder messages about upcoming deadlines or recording communications between participants. But technology is expanding its capabilities all the time, and the question is not so much what the fourth party is capable of today but what the fourth party may be capable of in the years to come.

Moore's law, first proposed in the 1970s, posited that computer processors would double in power approximately every 18 months (Tardi 2019). This prediction has proven remarkably

prescient, holding true to the current day (even though the timeline has now expanded to approximately two years). The futurist Ray Kurzweil (2005) has described an event called the Singularity, which will occur when the power of a single computer processor exceeds the computing power of the human brain, and he predicts it to occur sometime before the year 2030 (Wikipedia 2020). Combined with the predictions in Moore's law, that means that by the 2030s a single computer processor will be twice as powerful as the human brain, and so on as computer processors expand in power at an exponential rate.

Computer scientists and artificial intelligence researchers have predicted for decades that computers might become so powerful one day that they would be able to approximate or exceed human intelligence. Now we are starting to see some of those prognostications coming true. Machine learning enables powerful computer processors connected to large, structured data sets to glean sophisticated rules that can be applied in future cases to make highly accurate decisions and determinations. Once we start to think about the role of technology as a fourth party in our disputes, we can envision a future where the expanding capabilities of the fourth party become indispensable in helping the human parties find fair and just outcomes to their cases with the assistance of technology.

12. CASE STUDY: DOMAIN NAME DISPUTES

One of the most successful examples of a global ODR system is the Uniform Domain-Name Dispute-Resolution Protocol (UDRP), created by the Internet Corporation for Assigned Names and Numbers (ICANN) (ICANN 2012a,b). The expansion of the Internet in the late 1990s was accompanied by an explosion in demand for domain names, which are the keywords Internet users use to reach their desired destinations on the World Wide Web. Disputes around valuable domain names with the common extensions of .com, .org, and .net reach around the globe. Any person on the planet has the right to purchase a top-level domain through an approved domain name registrar, yet domain name purchasers come from different countries and are therefore subject to different laws and regulations. ICANN realized it needed to create a global system for resolving disputes around these domain names, independent of any one jurisdiction, so it crafted the UDRP program in 1999 (ICANN 2012a,b).

Any individual who feels that they should be the rightful owner of a domain name that is currently owned by someone else has the right to file a case under the UDRP. There are five globally approved dispute resolution service providers who operate under the UDRP spread all around the world (ICANN 2012a,b). The complainant files their case and pays the filing fee to the dispute resolution service provider of their choice. Once the claim is filed, the owner of the domain name is given an opportunity to respond. Once each side has laid out their case, an evaluator (or panel of evaluators) is selected by the dispute resolution service provider to evaluate the matter and render a decision. There are only a few reasons why an evaluator can decide that the ownership of a domain name should be changed, and each reason is explicitly called out within the UDRP. Once a decision is rendered by the evaluator (or evaluators), the parties are notified, and then the record in the global domain name database is changed accordingly. If the evaluator decides that the complainant should be awarded the domain name, the domain name record in the global database is altered to give control to the complainant (ICANN 2012a,b).

The UDRP has processed more than 60,000 cases since its inception (ICANN 2012a,b). It is a precedent-based system, so every evaluator is expected to have read and considered the precedents established by prior decisions. That means there is an emerging body of global domain name cases that have established certain principles that govern future domain name cases. The UDRP is also designed to be completely transparent, so the identities of the parties and the evaluators and the

full text of the decisions rendered are available to anyone who cares to peruse them. This level of transparency builds trust in the UDRP because decisions are not being reached secretly in a manner that benefits one set of parties over another in a way that outside observers cannot identify.

The UDRP is a good example of a justice system that works the way the Internet works. It is not bound by any particular jurisdiction, it is global and transparent, the participants are not required to show up in person at a specified location to get a resolution, and all outcomes delivered are immediately and effectively enforced. The UDRP is a good model for any ODR system focused on global intellectual property cases, but it provides a strong template for other types of ODR caseloads that will need to be similarly transparent, accessible, and multi-jurisdictional.

13. WHAT WE KNOW ABOUT ONLINE DISPUTE RESOLUTION

As ODR has become more commonplace and ODR programs and platforms have proliferated around the world, questions around quality have become more salient. It is not difficult to imagine a bad actor setting up an ODR platform that it claims is fair and impartial but behind the scenes may be a kangaroo court designed to benefit one type of party over another. For instance, an ODR platform designed to resolve monetary disputes could collect the reserve price from the complainant while assuring confidentiality, while in fact being coded to secretly share the reserve price with the respondent so that the respondent could put in the lowest acceptable amount that will generate an automated resolution. This kind of unethical ODR systems design is a real possibility, and it would be very hard for the users of such a platform to identify the unethical operation purely from their end-user experience using the platform.

In response, the global community of ODR researchers and service providers has created a new organization, the International Council for Online Dispute Resolution (ICODR), which promotes ethical guidelines for both individual neutrals (like arbitrators and mediators) and ODR system designers and platform programmers. The objective of ICODR is to certify and monitor global ODR service providers to combat the risk of unethical kangaroo courts and investigate complaints against individual ODR platforms (ICODR 2019).

The ethical standards promulgated by ICODR are available in their entirety on the ICODR website (<http://www.icodr.org>), but the top-line principles articulated in those standards are accessibility, impartiality, legality, confidentiality, and security. ODR services will continue to evolve as technology evolves, and ICODR's vision is to continue to iterate and develop these ethical standards so that they stay relevant to modern ODR practice to promote trust and confidence in ODR services worldwide.

14. WHAT WE STILL NEED TO LEARN ABOUT ONLINE DISPUTE RESOLUTION

We have learned many lessons and best practices about ODR over the past two decades, but many questions still remain (Katsh & Rule 2016). Data generated by ODR platforms demonstrate clearly that ODR can be efficient, effective, consistent, and scalable. Data also demonstrate that ODR systems can generate very high levels of participant satisfaction through faster time to resolution and ease of access. However, we still lack definitive data on the durability of outcomes achieved through ODR and the rates of breakdown in outcomes achieved via ODR versus the rates of breakdown in face-to-face resolutions. Valid concerns have been raised about whether ODR techniques appropriately account for the emotional and psychological needs of the disputants (Sternlight 2020). It stands to reason that in some emotionally complex cases, the value of a human neutral listening

to the stories of the parties and expressing empathy may exceed whatever efficiency benefits may come from a technology-only algorithmic resolution process.

There is also the question of whether ODR processes deliver the same quality of justice as face-to-face resolution systems. Although a dispute system design may be evaluated as procedurally just independent of any individual case, the outcomes generated by these online processes should be evaluated against outcomes generated by face-to-face processes to understand how online mechanisms may change the nature of resolutions achieved (Condlin 2017). Especially once machine learning and artificial intelligence become more integrated into ODR systems, outcome measurement will be more important, because the internal workings of an artificially intelligent algorithm may be too complicated for humans to evaluate for procedural justice (Larson 2010).

Every ODR process should be subject to continuous monitoring, evaluation, and improvement to ensure the mechanism is operating ethically and as intended. External auditing and supervision may provide an additional layer of credibility and trustworthiness to the process as well. ODR systems cannot be designed, launched, and then left to operate unsupervised; they must be continuously improved and observed so that they can adapt appropriately as case volumes and party expectations evolve.

15. WHAT IS COMING NEXT

Even with the significant progress that has been achieved in launching and refining ODR platforms and best practices, we are likely still at the beginning of ODR's development. The cutting-edge ODR platforms we marvel at today will likely seem quite primitive and retro just five years from now. New technologies on the horizon, including smart contracts, blockchain (Rabinovich-Einy & Katsch 2019), and quantum computing, will one day make our current efforts seem crude and ineffective (Schmitz & Rule 2019). But we cannot get to those next-generation technologies without taking the intermediate steps available to us today.

It may be that a generation or two from now, future disputants will look back on our era of human-powered justice as hopelessly biased and seemingly random in its operations and outcomes. Just like future passengers who will be driven around by algorithms instead of humans (and who will regard the era of human-driven automobiles as frighteningly dangerous, inefficient, and unpredictable), future disputants may also regard our current system as unacceptable and unjust in comparison to their algorithmic justice processes managed by advanced artificial intelligence and robojudges. All we can do is the best we are capable of with our current tools, striving to live up to our ethical obligations and best practices in designing the most effective justice system we can currently create. Embracing these opportunities and continuously learning will help to move us toward our ultimate objective: a resolution system that provides fast and fair justice for all.

DISCLOSURE STATEMENT

The author is not aware of any affiliations, memberships, funding, or financial holdings that might be perceived as affecting the objectivity of this review.

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