Online Dispute Resolution and the Future of Justice

By Colin Rule[1]

Summary

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 the author explains the need for ODR, provides a short history of its evolution, outlines a rubric for building ODR systems, shares some case studies demonstrating its use, and describes 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 20th century geographic limitations dictated almost entirely who we interacted with each day and what activities filled our daily lives. Now in the 21st 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's getting hard to remember how we managed.[2] Marc Andreesen, 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.[3]

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

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[1] Vice President of Online Dispute Resolution, Tyler Technologies, former Director of Online Dispute Resolution for eBay and PayPal, and Lecturer in Law at Stanford Law School and Santa Clara University Law School.
[2] David A. Larson, "Online Dispute Resolution: Do You Know Where Your Children Are?" *Negotiation Journal* 19, 199 (2003).
[3] "Why Software is Eating the World," Marc Andreesen, August 2011. https://a16z.com/2011/08/20/why-software-is-eating-the-world/, last visited 11/7/19.

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'll 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 didn't 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 24x7, because that's the level of responsiveness they already enjoy on websites like Amazon and Google.

But it's not only that technology is providing options to resolve the same kinds of problems that we've 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 don't 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're 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 towards 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.[4] 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

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[4] "Self-Represented Litigants: A Guide for Government and Court Decision Makers," by Charles Dyer, *GLL Resource Guide No. 4*, 2018. https://www.aallnet.org/gllsis/wp-content/uploads/sites/9/2018/01/scllguide4.pdf, last visited 11/7/19.

represented by attorneys.[5] Many courts report that 50 to 60% of the 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.[6]

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, which compounds the dissatisfaction felt by citizens.[7]

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.[8] In order to save costs, some law firms have outsourced their entry-level work to less expensive employees and contractors in other parts of the world.[9] 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 isn't going back to the way things worked before the Internet.

4. The expansion of dispute resolution

These challenges around access to justice aren't 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.[10] 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

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[5] "Every year, millions try to navigate US courts without a lawyer", by Lauren Lucas, *The Conversation*, September 21, 2017. http://theconversation.com/every-year-millions-try-to-navigate-us-courts-without-a-lawyer-84159, last visited 11/7/19.

[6] "Cases Without Counsel," IAALS Research Report, Natalie Knowlton, May 2016. https://iaals.du.edu/sites/default/files/documents/publications/cases_without_counsel_research_report.pdf, last visited 11/7/19. See also National Center for State Courts Self Representation Resource Guide, https://www.ncsc.org/Topics/Access-and-Fairness/Self-Representation/Resource-Guide.aspx, last visited 11/7/19.

[7] "Judicial Branch Budget Cuts" by Leanne Kozak, California Courts News, July 26, 2011. https://www.courts.ca.gov/14876.htm, last visited 11/7/19.

[8] "Law Schools Face Diminished Enrollment Numbers," by Jack Miller, February 10, 2019. https://bcheights.com/2019/02/10/law-schools-face-diminished-enrollment-numbers/, last visited 11/7/19.

[9] "Top Advantages of Legal Process Outsourcing (LPO)" by Sally Kane, March 6, 2019. https://www.thebalancecareers.com/top-advantages-of-outsourcing-2164339, last visited 11/7/19.

[10] "Community Dispute Resolution: Assessing Its Importance and Addressing Its Challenges," by Terry Amsler, June 29, 2017. https://www.americanbar.org/groups/dispute_resolution/publications/dispute_resolution_magazine/2013/winter/community_disputeresolutionassessingitsimportanceandaddressingit/, last visited 11/7/19.

named Frank Sander gave a speech on expanding access to justice where he described a new vision for a "multidoor courthouse" offering a variety of appropriate resolution pathways for individual dispute types.[11] 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 Prof. Sander's recommended approach quickly gained traction, and it transformed the provision of justice in the United States over the next few decades. Prof. Sander's idea of "fitting the forum to the fuss"[12] (as he put it) freed judicial dispute systems 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 has 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.[13] 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 in order to encourage people to trust online purchases.[14] 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.[15]

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

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[11] "Before the Big Bang: The Making of an ADR Pioneer," by Michael Moffitt, *Negotiation Journal*, March 2006. https://law.uoregon.edu/images/uploads/entries/Michael_Moffitt-Before_the_Big_Bang-The_Making_of_an_ADR_Pioneer.pdf, last visited 11/7/19.

[12] "Fitting the Forum to the Fuss: A User-Friendly Guide to Selecting an ADR Procedure," by Frank E. A. Sander and Stephen B. Goldberg, *Negotiation Journal*, January 1994. https://onlinelibrary.wiley.com/doi/abs/10.1111/j.1571-9979.1994.tb00005.x, last visited 11/7/19.

[13] E. Katsh & J. Rifkin, *Online Dispute Resolution: Resolving Conflicts in Cyberspace*, Jossey-Bass, San Francisco, 2001.

[14] Noam Ebner, "ODR and Interpersonal Trust" in Abdel Wahab Et Al, *ONLINE DISPUTE RESOLUTION: THEORY AND PRACTICE: A TREATISE ON TECHNOLOGY AND DISPUTE RESOLUTION* (Eleven International Publishers, 2012).

[15] "Building Trust in eCommerce Through Online Dispute Resolution," by Amy Schmitz, in John A. Rothchild (ed.), *Research Handbook on Electronic Commerce Law*, Edward Elgar, 2016, Forthcoming; U of Colorado Law Legal Studies Research Paper No. 15-15. https://lawweb.colorado.edu/profiles/pubpdfs/schmitz/SchmitzBuildingTrustinEcommerceThroughOnlineDisputeResolution.pdf, last visited 11/7/19.

arose in online purchases of services. Any online marketplace experiences of volume of disputes, from ridesharing companies like Uber to housing sharing companies like Airbnb. Online services 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.[16] 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 in order to lower their tax bill.[17] 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 there are disagreements between a medical service provider and an insurance company 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 3 to 5 years to be resolved, but when they were handled through ODR, they were resolved in an average of 3 to 5 months.[18]

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

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[16] "Making Peace on eBay: Resolving Disputes in the World's Largest Marketplace," by Colin Rule in ACResolution Magazine, Fall 2008. http://colinrule.com/writing/acr2008.pdf, last visited 11/7/19.

[17] "Online Resolution and Citizen Empowerment: Property Tax Appeals in North America," by Colin Rule and Mark Wilson, in *Revolutionizing the Interaction between State and Citizens through Digital Communications*, Edited by Sam B. Edwards III and Diogo Santos, Information Resources Management Association, 2015. http://www.colinrule.com/writing/assessments.pdf, last visited 11/7/19.

[18] "American Arbitration Association Selects Modria to Power New York No Fault Caseload" by PR Newswire, March 5, 2014. https://www.prnewswire.com/news-releases/american-arbitration-association-selects-modria-to-power-new-york-no-fault-caseload-248543191.html, last visited 11/7/19.

couldn't work for those cases. The private sector rapidly innovated around ODR in order to solve this problem.

International organizations eventually took the cue from the technology companies and led the push for the expansion of ODR. UNCITRAL, 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 online dispute resolution 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 (ISO) 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. ODR 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,"[19] 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. That 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.[20]

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 ridesharing companies like Uber and Lyft).[21] The monopoly enjoyed by the courts created a risk that the courts 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.[22] This has led some leaders within

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[19] Exploring the supposed quote from Willie Sutton, https://quoteinvestigator.com/2013/02/10/where-money-is/, last visited 11/7/19.
[20] "THE LEGAL PROFESSION'S MONOPOLY: FAILING TO PROTECT CONSUMERS," by Laurel Rigertas, Fordham Law Review, Vol. 82, 2014. http://fordhamlawreview.org/wp-content/uploads/assets/pdfs/Vol_82/No_6/Rigertas_May.pdf, last visited 11/7/19.
[21] "Uber Is Destroying The Value Of Taxi Monopolies In A Bunch Of American Cities," by Jim Edwards, *Business Insider*, November 28, 2014. https://www.businessinsider.com/uber-destroying-value-of-taxi-monopolies-cartels-2014-11, last visited 11/7/19.
[22] "Declining court caseloads reflect societal, other changes," by Matthew Hector, *Illinois Bar Journal*, March 2016, Volume 104, No. 3. https://www.isba.org/ibj/2016/03/lawpulse/decliningcourtcaseloadsreflectsocie, last visited 11/7/19.

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 drive 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.[23] It used to be that the only people that had access to the Internet were high income people, 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 Prof. 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.[24]

8.   Global leadership leading to traction in the U.S. 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.[25] 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.[26] 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 online dispute resolution, 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.[27] 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

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[23] "10% of Americans don't use the internet. Who are they?" by Monica Anderson, Andrew Perrin, Jingjing Jiang and Madhumitha Kumar, Pew Research Center Fact Tank, April 22, 2019. https://www.pewresearch.org/fact-tank/2019/04/22/some-americans-dont-use-the-internet-who-are-they/, last visited 11/7/19.

[24] "Report Holds eBay Dispute Resolution as Model for Courts" by Ina Steiner, *eCommerceBytes*, February 16, 2015. https://www.ecommercebytes.com/C/blog/blog.pl?/pl/2015/2/1424141431.html, last visited 11/7/19.

[25] *Final Report of the UK CJC ODR Committee*, December 4, 2018. http://odr.info/cjc/, last visited 11/7/19.

[26] "China's Internet Courts are Spreading; Online Dispute Resolution is Working" by Sara Xia, China Law Blog, December 23, 2018. https://www.chinalawblog.com/2018/12/chinas-internet-courts-are-spreading-online-dispute-resolution-is-working.html, last visited 11/7/19.

[27] "Online Dispute Resolution Offers a New Way to Access Local Courts," Pew Trusts Fact Sheet, January 4, 2019. https://www.pewtrusts.org/en/research-and-analysis/fact-sheets/2019/01/online-dispute-resolution-offers-a-new-way-to-access-local-courts, last visited 11/7/19.

with various court jurisdictions around the country on the design and deployment of ODR systems.[28] This led to a flowering of ODR within the United States courts. By the end of 2019 more than 50 courts in the United States had deployed online dispute resolution in one or more of their caseloads, and that number is predicted to double again by the end of 2020.[29]

Some courts built ODR processes with pre-existing software, such as the Modria platform from Tyler technologies[30] or the Matterhorn platform from Court Innovations.[31] Other courts decided to build their own technology from scratch, such as the Utah State Judiciary.[32] Some ODR programs targeted transactional case volumes like debt collection or small claims, while 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.[33] This set the stage for even faster growth once the benefits of ODR were quantified through empirical research.

9. Overview of how ODR 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 are given the ability to 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

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[28] "NCSC Pew Charitable Trusts ODR Project Announcement," http://odr.info/ncscpew-charitable-trusts-odr-project-announcement/, last visited 11/7/19.

[29] "ODR for Courts," JTC Resource Bulletin, National Center for State Courts, November 29. 2017. https://www.ncsc.org/~/media/Files/PDF/About%20Us/Committees/JTC/JTC%20Resource%20Bulletins/2017-12-18%20ODR%20for%20courts%20v2%20final.ashx, last visited 11/7/19.

[30] https://www.tylertech.com/products/modria, last visited 11/7/19.

[31] https://getmatterhorn.com/, last visited 11/7/19.

[32] "Utah's Online Dispute Resolution Program," by Justice Deno Himonas, Dickinson Law Review, Vol. 122, Iss. 3 (2018). https://ideas.dickinsonlaw.psu.edu/dlr/vol122/iss3/6/, last visited 11/7/19.

[33] "Online Dispute Resolution Moves From E-Commerce to the Courts," Pew Charitable Trusts, June 4, 2019. https://www.pewtrusts.org/en/research-and-analysis/articles/2019/06/04/online-dispute-resolution-moves-from-e-commerce-to-the-courts, last visited 11/7/19.

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 DNMEA model for ODR

A common template for designing ODR processes is called the DNMEA model, which stands for Diagnosis, Negotiation, Mediation, Evaluation, and Appeal.[34] 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, while 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's examine each of these modules individually.

   A. Diagnosis

Diagnosis is the first phase of the ODR process where 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 of their case. Often face-to-face mediators only get access to the dispute 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.[35] That is why problem diagnosis offers such promise for ODR systems.

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[34] Colin Rule and Amy Schmitz, *The New Handshake: Online Dispute Resolution and the Future of Consumer Protection*, American Bar Association, 2018.
[35] "Planning is Critically Important for Early Dispute Resolution," by John Lande, Mediate.com (by way of the Indisputably blog), June 2015. https://www.mediate.com/articles/LandeJbl20150612.cfm, last visited 11/7/19.

B. Negotiation

Negotiation is the most common form of dispute resolution in the world. We negotiate with our co-workers, 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 with one another.[36] Most of us think we are quite good at negotiation, but negotiation research reveals that many of common instinctual negotiation strategies (such as bullying or intimidation or misrepresentation) in fact generate worse outcomes over time.[37] 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[38]) 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 amongst the participants.

Technology can streamline these processes through game theory.[39] For example, the complainant can enter an amount they would be willing to accept in order to close the matter in question, but then also be asked to confidentially provide the lowest amount they would be willing to accept in order 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 in order 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 in order 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

[36] "The Benefits Of Everyday Negotiations," by Ashira Prossack, *Forbes.com*, Feb 13, 2018. https://www.forbes.com/sites/ashiraprossack1/2018/02/13/the-benefits-of-everyday-negotiations/#3845f9663a9e, last visited 11/7/19.

[37] "The 5 Most Common Negotiating Mistakes" by Stephanie Vozza, *Fast Company*, June 23, 2014. https://www.fastcompany.com/3033337/the-5-most-common-negotiating-mistakes, last visited 11/7/19.

[38] "What is the Nash equilibrium and why does it matter?" The Economist, September 7th, 2016. https://www.economist.com/the-economist-explains/2016/09/06/what-is-the-nash-equilibrium-and-why-does-it-matter, last visited 11/7/19.

[39] "Game Theory in Negotiation," by Sabine Dabboussi, Medium.com, Nov 7, 2018. https://medium.com/@sabinelea/game-theory-in-negotiation-84dda8f4f707, last visited 11/7/19.

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.[40]

C. Mediation

Mediation is a process where 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.[41]

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. Asynchronous communication 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.[42]

D. Evaluation

Evaluation is the process that is most commonly delivered within the court system. It is where 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

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[40] "New Mediator Capabilities in Online Dispute Resolution," by Colin Rule, Mediate.com, December 2000. https://www.mediate.com/articles/rule.cfm, last visited 11/7/19.

[41] "What is Mediation?" on FindLaw.com. https://adr.findlaw.com/mediation/what-is-mediation-.html, last visited 11/7/19.

[42] "New Mediator Capabilities in Online Dispute Resolution," by Colin Rule, Mediate.com, December 2000. https://www.mediate.com/articles/rule.cfm, last visited 11/7/19.

disputants can then discuss the evaluator's proposal and customize it in order 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 crowd sourced 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 crowd sourced process where 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.[43] 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 the feasibility of crowd sourced ODR much more doable.

E. Appeal

Appeal processes often work similarly to evaluative processes, but there are creative ways that dispute systems designers can utilize appeals to increase the trustworthiness and procedural justice of their ODR system designs. For example, a crowd-sourced 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 where the parties are not satisfied with the algorithmic or crowd sourced outcome, those parties could have a right to request a human powered appeal that will examine the particulars of the case in question and affirm or revise the evaluative outcome generated by the algorithm or crowd sourced 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 Janet Rifkin and Ethan Katsh in their seminal book *Online Dispute Resolution*[44], 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 only be capable of some very simple tasks, such as sending out reminder messages about upcoming deadlines or recording communications between participants. But

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[43] "Leveraging the Wisdom of Crowds: The eBay Community Court and the Future of Online Dispute Resolution," by Colin Rule and Chittu Nagarajan, in ACResolution Magazine, Winter 2010. http://colinrule.com/writing/acr2010.pdf, last visited 11/7/19.

[44] E. Katsh & J. Rifkin, *Online Dispute Resolution: Resolving Conflicts in Cyberspace*, Jossey-Bass, San Francisco, 2001.

technology is expanding its capabilities all the time, and the question is not so much what the fourth party is capable of today so much as 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 about every 18 months.[45] This prediction has proven remarkably prescient, holding true to the current day (even though the timeline has now expanded to about two years). The futurist Ray Kurzweil 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.[46] Combined with the predictions in Moore's law, that means that by the 2030s a single computer processor will be twice as power 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).[47] 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.[48]

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.[49] The complainant files their case and pays the filing fee to the dispute resolution service provider of their

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[45] "Moore's Law," by Carla Tardi, Investopedia.com, Sep 5, 2019. https://www.investopedia.com/terms/m/mooreslaw.asp, last visited 11/7/19.

[46] For an overview, see https://en.wikipedia.org/wiki/Technological_singularity (last visited 11/7/19), as well as Ray Kurzweil's book, *The Singularity is Near*, 2005.

[47] For more information see https://en.wikipedia.org/wiki/Uniform_Domain-Name_Dispute-Resolution_Policy (last visited 11/7/19), as well as ICANN Domain Name Dispute Resolution Policies at ICANN.org, https://www.icann.org/resources/pages/dndr-2012-02-25-en, last visited 11/7/19.

[48] Id.

[49] Id.

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 with in 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.[50]

The UDRP has processed more than 60,000 cases since inception.[51] 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 secretively 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 in order 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 ODR

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 it may be a kangaroo court designed to benefit one type of party over another. For instance, if an ODR platform was designed to resolve monetary disputes, it could collect the reserve price from the complainant while assuring that the information will be kept confidential, but in fact it was coded to secretly share the reserve price with the respondent so that the respondent could to 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 have created a new organization, the International Council for Online Dispute Resolution (ICODR) which promotes ethical guidelines for both individual neutrals (like arbitrators and mediators) as well as ODR systems designers and platform programmers. The objective of ICODR is to certify and monitor global ODR service

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[50] Id.

[51] See http://www.internic.net/faqs/udrp.html, last visited 11/7/19.

providers to combat the risk of unethical kangaroo courts and investigate complaints against individual ODR platforms.[52]

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 the vision of ICODR 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 ODR

There are many lessons and best practices we have learned about online dispute resolution over the past two decades, but there are still many questions we have yet to answer.[53] Data generated by online dispute resolution platforms demonstrates clearly that ODR can be efficient, effective, consistent, and scalable. Data also demonstrates that ODR systems can generate very high levels of participant satisfaction through faster time to resolution and ease of access.[54] However, we still do not have definitive data on the durability of outcomes achieved through online dispute resolution 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 online dispute resolution techniques appropriately account for the emotional and psychological needs of the disputants.[55] 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. While a dispute systems 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.[56] Especially once machine learning and artificial intelligence become more integrated into online dispute resolution 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.[57]

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. Online dispute resolution

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[52] See http://www.icodr.org/standards, last visited 11/7/19.

[53] Ethan Katsh & Colin Rule, What We Know and Need to Know About Online Dispute Resolution, 67 S. CAR. L. REV. 329, 330, 331 (2016).

[54] Id.

[55] "Pouring a Little Psychological Cold Water on ODR (Online Dispute Resolution)", by Jean R. Sternlight, Missouri Journal of Dispute Resolution, Forthcoming, written August 23, 2019. https://papers.ssrn.com/sol3/papers.cfm?abstract_id=3446140, last visited 11/7/19.

[56] Robert J. Condlin, *Online Dispute Resolution: Stinky, Repugnant, or Drab*, 18 CARDOZO J. CONF. RES. 717, 718 (2017).

[57] David Allen Larson, *Artificial Intelligence: Robots, Avatars, and the Demise of the Human Mediator*, 25 *OHIO ST. J. ON DISP. RESOL*. 105 (2010).

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's 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 online dispute resolution platforms we marvel at today will likely seem quite primitive and retro just five years from now. New technologies on the horizon like smart contracts, blockchain[58], and quantum computing will one day make our current efforts seem crude and ineffective.[59] But we will not be able to 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.

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[58] Orna Rabinovich-Einy & Ethan Katsh, *Blockchain and the Inevitability of Disputes: The Role for Online Dispute Resolution*, J. DISP. RES. 47, 51 (2019)
[59] Amy Schmitz and Colin Rule, *Online Dispute Resolution for Smart Contracts*, J. DISP. RESO. 2019(2) 103-125.