

Digital Justice

Reshaping Boundaries in an Online Dispute Resolution Environment*

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Abstract

Digital technology is transforming the landscape of dispute resolution: it is generating an ever growing number of disputes and at the same time is challenging the effectiveness and reach of traditional dispute resolution avenues. While technology has been a disruptive force in the field, it also holds a promise for an improved dispute resolution landscape, one that is based on fewer physical, conceptual, psychological and professional boundaries, while enjoying a higher degree of transparency, participation and change. This promise remains to be realized as the underlying assumptions and logic of the field of dispute resolution have remained as they were since the last quarter of the 20th century, failing to reflect the future direction dispute resolution mechanisms can be expected to follow, as can be learned from the growth of online dispute resolution. This article explores the logic of boundaries that has shaped the traditional dispute resolution landscape, as well as the challenges such logic is facing with the spread of online dispute resolution.

Keywords: ADR, ODR, DSD, digital technology, boundaries, dispute prevention.

1. Introduction

Technology is transforming the landscape of disputing. Even more than in the past, 'conflict is a growth industry'¹ as consumers have problems with transactions, citizens worry about preserving their identity, businesses face threats to

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1 R. Fisher & W. Ury, *Getting to Yes*, Houghton Mifflin Harcourt, Boston, 1981, p. 17.

their reputations, social networks foster anti-social behaviour, governments struggle with security, patients encounter new health care choices and everyone experiences imperfectly functioning websites. The merger of the physical world with the virtual world has brought with it a broad range of novel, complex and valuable transactions and relationships. It has also brought with it a need for new dispute resolution and prevention processes.

Opportunities are now present for designing powerful systems to both prevent and resolve problems and disputes. This article presents a new perspective on what needs to be attended to in the design of dispute prevention and resolution systems. Thus far, where technology has been embraced, it has most often been viewed as a convenience or efficiency enhancer. These goals adequately capture the current state of penetration of digital technology in the dispute resolution field. They do not, however, reflect the future direction that online dispute resolution (ODR) and online dispute prevention tools and systems can be expected to follow.

New technologies disrupt not only by changing how we do things but by changing how we think about what we are doing, about what needs to be done and what can be done. Alternative dispute resolution (ADR) was not simply a more efficient approach than what happened in court and, over time, it will be clear that ODR is not simply a more efficient process than ADR. ADR brought with it a new mindset, and so will ODR. ADR involved not only new tools and techniques but different assumptions, principles and values, and so will ODR. Today, the logic of the field of dispute resolution largely remains as it was in the last quarter of the twentieth century. That is inevitably going to change as access barriers are reduced, effectiveness is increased, machines become more intelligent, software becomes more powerful and some components and beliefs of the ADR field are challenged.

ODR began its existence as 'Online ADR' and was intended to be a network-based equivalent of offline face-to-face dispute resolution processes, such as negotiation, mediation and arbitration. It attempted to mimic traditional processes but at a distance. The first experiments in ODR used human mediators who employed the network in lieu of meeting face-to-face but used the skills that they had developed and employed offline.² While information technologies typically innovate by providing new capabilities for both communicating information and processing information, the initial ODR experiments emphasized the former more than the latter. In general, therefore, while the tools were novel, the model was not. Communication is an element in every dispute resolution process, and new capabilities for communicating and managing the flow of information were viewed by the traditional ADR community as, at best, a necessary add-on where face-to-face meetings were not possible. In that guise, it was not a change agent in any kind of fundamental way.

Despite the growth of ODR systems during this millennium, the traditional dispute resolution field has continued to view ODR as a niche area with limited

2 O. Rabinovich-Einy & E. Katsh, 'Technology and the Future of Dispute Systems Design', *Harvard Negotiation Law Review*, Vol. 17, 2012, pp. 151, 171.

relevance beyond the world of simple, repetitive online conflicts. Some of the resistance by individual mediators related to a concern over a need to learn about and use new online tools and technologies. In addition, however, there was apprehension over the possibility that ODR might indeed be something new in that it would threaten some of the values that were embedded in ADR processes. As we explain below, there is truth to this as boundaries that shape online and offline activities, relationships, concepts and values are indeed eroding as growing numbers of conflicts are being addressed through digital tools. In many respects, this parallels disruptions occurring in other information-intensive industries and professions.

Growth of ODR is slowly moving it beyond the position of new tools providing efficiencies and conveniences to that of a 'disruptive' technology,³ one that can be expected to challenge some of the most basic assumptions governing the field and around which its logic has been organized. As we show in this article, both courts and ADR mechanisms employ processes and approaches that are shaped by physical, conceptual, psychological and professional boundaries. These boundaries have allowed the dispute resolution field to deal with limited capacity, accommodate preferred values and preferences and generate institutional legitimacy. But it is precisely these boundaries that are being challenged by digital technology. As digital tools are increasingly used to assist parties in conflict, the use of predigital dispute resolution models will appear suboptimal. At the same time, alongside the challenge of growing numbers of disputes is the opportunity to use information technologies in new ways that anticipate and prevent disputes and that may not be consistent with some traditional practices.

In Section 2 of this article, we provide an introduction to the theories, policies, practices and assumptions underlying contemporary dispute resolution and explain how, both in formal and informal arenas, they are organized around a set of boundaries. In Section 3 we offer an explanation for the dominance of boundaries in dispute resolution. Section 4 uncovers the disruptive impact technology is having on the field by blurring traditional boundaries, giving rise to new types of disputes and to a large number of conflicts, for many of which traditional dispute resolution avenues cannot provide redress. By drawing on some innovative examples of the use of technology in addressing disputes through ODR tools and systems, we uncover the contours of an alternative logic for the field of dispute resolution: one that is grounded in a reality with fewer defined and fixed boundaries but with more access, participation and change.

2. Dispute Resolution Theory, Practice and Policy as We Know It: A Field Defined by Its Boundaries

Contemporary dispute resolution theory developed in the second half of the twentieth century alongside the enthusiastic adoption of ADR processes. In the

3 J.L. Bower & C.M. Christensen, 'Disruptive Technologies: Catching the Wave', *Harvard Business Review*, Vol. 73, No. 1, 1995, pp. 43–53.

1960s and 1970s, dissatisfaction with the court system grew as caseloads increased substantially and budgets dwindled.⁴ Indeed, discontent with the formal avenue led to the convening of the well-known 'Pound Conference' in 1976, where leading practitioners, academics and judges discussed the ills of the legal system and potential solutions to the problems.⁵ The principal problems raised were the high costs associated with a slow, complex and overburdened system.⁶

Discontent with the court system, however, extended beyond narrow efficiency-based considerations related to the costs and time for litigating a case. Critiques of courts were aimed at the quality of the outcome reached,⁷ parties' satisfaction with the procedure employed⁸ and the impact of the resolution on the disputing parties' relationship and future cooperation, as well as considerations relating to the broader community.⁹ In terms of quality of outcome, courts were criticized for their 'limited remedial imaginations',¹⁰ with most cases resulting in some form of monetary compensation, typically somewhere between the positions of the disputing parties.¹¹ Courts were reluctant, and often incapable of, providing more creative solutions, which would actually address what the parties needed, as opposed to what they demanded. Critique of court remedies was, in fact, part of a much broader criticism of a process that was adversarial and position-based, instead of addressing parties' needs and interests.¹² In this respect, interest-based negotiation and mediation were expected to provide a real alternative, shifting parties' focus from rights and positions to their underlying needs, allowing parties to brainstorm and devise 'win-win' solutions constrained only by the parties' creativity and imagination.¹³

As of the 1970s, mediation and, to a lesser extent, arbitration were introduced into community and court settings as an avenue for addressing conflict in

- 4 T.D. Rowe Jr., 'Litigation, Alternatives, and Accommodation: Background Paper', *Duke Law Journal*, Vol. 1989, No. 4, 1989, pp. 824, 836-838.
- 5 C. Menkel-Meadow, 'Regulation of Dispute Resolution in the United States of America: From the Formal to the Informal to the "Semi-Formal"', in F. Steffek *et al.* (Eds.), *Regulating Dispute Resolution: ADR and Access to Justice at the Crossroads*, Hart Publishing, 2013.
- 6 J. Auerbach, *Justice Without Law?*, Oxford University Press, New York, 1983, p. 95.
- 7 C. Menkel-Meadow, 'Pursuing Settlement in an Adversary Culture: A Tale of Innovation Co-opted or "The Law of ADR"', *Florida State University Law Review*, Vol. 19, 1991, p. 3.
- 8 D. Shestowsky, 'Empirical Evidence for Parties' Preference for Mediation over Litigation and for Facilitative over Evaluative Mediation: Procedural Preferences in Alternative Dispute Resolution: A Closer, Modern Look at an Old Idea', *Public Policy & Law*, Vol. 10, 2004, p. 211.
- 9 C. Menkel-Meadow, *Dispute Resolution: Beyond the Adversarial Model*, Wolters Kluwer Law & Business, 2010, p. 228.
- 10 C. Menkel-Meadow, 'The Trouble with the Adversary System in a Post-Modern, Multicultural World', *William & Mary Law Review*, Vol. 38, 1996, p. 7.
- 11 M. Shapiro, *Courts: A Comparative and Political Analysis*, University of Chicago Press, 1986, p. 10.
- 12 Menkel-Meadow, 1996; Fisher & Ury, 1981, pp. 40-55.
- 13 L.L. Riskin, 'Mediation and Lawyers', *Ohio State Law Journal*, Vol. 43, 1982, p. 34; C. Menkel-Meadow, 'Towards another View of Legal Negotiation: The Structure of Problem-Solving', *UCLA Law Review*, Vol. 31, 1983.

lieu of, or alongside, the court system.¹⁴ Despite critiques over ‘privatization of justice’ and the ‘vanishing trial’ phenomena, adoption of ADR schemes in the 21st century continued and expanded.¹⁵ In many respects, the debate on privatization, the role of courts and the need for ADR became obsolete. Institutionalization spread beyond courts and agencies, extending to private entities, giving rise to the phenomenon of ‘internal dispute resolution’.¹⁶ Organizations began adopting ‘conflict management systems’ for addressing disputes involving employees and customers.¹⁷ While the seeds for such developments were planted in 1989 with the publication of Ury, Brett and Goldberg’s ‘Getting Disputes Resolved’,¹⁸ the design and adoption of such systems evolved into a field of its own, ‘dispute systems design (DSD)’, only a decade or so later.¹⁹ Interestingly, the rise of DSD was taking place at approximately the same time that Internet communication was growing but, as we shall see, the ADR field has allowed limited penetration of new technologies.

While the ADR movement was united by its call for embracing alternatives to court, it was in fact grounded in diverging rationales and worldviews, ranging from efficiency²⁰ to party satisfaction²¹ and community empowerment.²² This state of affairs has generated a broad range of practices, but has also meant that the field has become an umbrella term for various theoretical approaches, each grounded in different disciplines and methodologies. The theory of ADR has drawn on multiple disciplines, including law, economics, psychology, sociology, anthropology and organizational behaviour. Despite its diverse roots, however, the writing in the field in the last few decades has followed a similar logic of boundary-setting in both practice and in theory. These boundaries are sometimes referred to as ‘barriers’,²³ and at other times as ‘stages’,²⁴ ‘categories’²⁵ or ‘dichot-

- 14 D.R. Hensler, ‘Our Courts, Ourselves: How the Alternative Dispute Resolution Movement is Reshaping Our Legal System’, *Penn State Law Review*, Vol. 108, 2003, p. 170; J. Sternlight, ‘ADR is Here: Preliminary Reflections on Where it Fits in a System of Justice’, *Nevada Law Review*, Vol. 3, 2002.
- 15 L.L. Riskin & N.A. Welsh, ‘Is That All There Is? “The Problem” in Court-Oriented Mediation’, *George Mason Law Review*, Vol. 15, 2008, p. 870.
- 16 L.B. Edelman, H.S. Erlanger & J. Lande, ‘Internal Dispute Resolution: The Transformation of Civil Rights at the Workplace’, *Law & Society Review*, Vol. 27, 1993.
- 17 D.B. Lipsky, R.L. Seeber & R.D. Fincher, *Emerging Systems for Managing Workplace Conflict: Lessons from American Corporations for Managers and Dispute Resolution Professionals*, Jossey-Bass, 2003.
- 18 W. Ury, J.M. Brett & S.B. Goldberg, *Getting Disputes Resolved: Designing Systems to Cut the Costs of Conflict*, Jossey-Bass, 1988.
- 19 Rabinovich-Einy & Katsh, 2012, pp. 157-158.
- 20 Hensler, 2003, p. 174; L.P. Senft & C.A. Savage, ‘ADR in the Courts: Progress, Problems and Possibilities’, *Penn State Law Review*, Vol. 108, 2003, p. 328.
- 21 Senft & Savage, 2003.
- 22 Hensler, 2003, pp. 170-174.
- 23 K.J. Arrow, R.H. Mnookin & A. Tversky, *Barriers to Conflict Resolution*, W.W. Norton, 1995.
- 24 W. Felstiner, R.L. Abel & A. Sarat, ‘The Emergence and Transformation of Disputes: Naming, Blaming and Claiming’, *Law & Society Review*, Vol. 15, 1980.
- 25 R.E. Miller & A. Sarat, ‘Grievances, Claims and Disputes: Assessing the Adversary Culture’, *Law & Society Review*, Vol. 17, 1982.

omies',²⁶ but in all instances create structures that organize the field – its limits, functions, concepts, values and goals. One way to map the various boundaries that have organized the field is by distinguishing among these physical, conceptual, psychological and professional boundaries.

2.1 *Physical Boundaries*

Physical boundaries are integral to the ADR literature. They relate most obviously to contemporary dispute resolution theory's understanding of dispute resolution as occurring in a physical place and being performed in a face-to-face setting, within a particular jurisdiction, subject to a particular body of law, with the force of the state supporting such services and ensuring the enforcement of any decision or resolution reached.²⁷

Physical meetings have innate and inevitable limitations. For the provider, operating a physical place comes at a cost, often a high cost, which can effectively screen many disputes from being voiced or addressed. Courts are a particularly costly dispute resolution avenue and one where the physical characteristics of the space are important in that they shape both the symbols and the processes that are present in the space. The expensive and overburdened court system has raised concerns regarding the ability of disadvantaged disputants to bring their disputes before the courts. While all disputants are subject to this state of affairs, disputants of low socio-economic backgrounds are obviously impacted more significantly.²⁸ When people with disabilities bring their case to court or to an alternative forum, physical access may be denied *de facto* or be extremely difficult to attain.²⁹ Even where these disputants are able to enter the courthouse, procedural arrangements and practices may unevenly impact them, making it more difficult for such parties to participate and have a voice in the process.³⁰ Other problems have to do with the geographic spread of legal services and access to such services by disadvantaged disputants.³¹

The desire to reduce costs has been a major concern for the ADR movement grounded both in the court systems' own desire to enhance its efficiency and productivity and in external calls for improved 'access to justice'.³² The degree to which ADR processes have succeeded in reducing access barriers remains debata-

26 S. Sturm & H. Gadlin, 'Conflict Resolution and Systemic Change', *Journal of Dispute Resolution*, 2007, pp. 2-3.

27 R. Susskind, *Tomorrow's Lawyers: An Introduction to Your Future*, Oxford University Press, 2013.

28 D.L. Rhode, 'Access to Justice', *Fordham Law Review*, Vol. 69, 2001, pp. 1785-1786.

29 D.S. Udell & R. Diller, 'Access to the Courts: An Essay for the Georgetown Law Center Conference on the Independence of the Courts', *Georgetown Law Journal*, Vol. 95, 2007, pp. 1139-1140.

30 B. Yngvesson & L. Mather, 'Courts, Moots and the Disputing Process', in K.O. Boyum & L.M. Mather (Eds.), *Empirical Theories About Courts*, Longman, 1983; Udell & Diller, 2007, pp. 1140-1141.

31 K. Cohl & G. Thomson, *Connecting Across Language and Distance: Linguistic and Rural Access to Legal Information and Services-Final Report*, The Law Foundation of Ontario, 2008, pp. 31-35.

32 M. Cappeletti & B. Garth, 'Access to Justice: the Newest Wave in the World Movement to Make Rights Effective', *Buffalo Law Review*, Vol. 27, 1977.

ble, and is the subject of contradictory empirical data.³³ But even at reduced costs, ADR has remained an activity that comes at a price and that itself presents physical barriers – having to ‘show up’ and participate, and to devote time, resources and energy to the process, all this is still needed even if no litigation process is conducted.

The physical attributes of dispute resolution processes can vary dramatically according to the type of process conducted. Litigation takes place in a highly visible and recognizable courthouse, which commonly has distinctive physical characteristics, such as the symbol of the state, typical architectural and internal design relating to such matters as the placement of the judge, parties and lawyers in the courtroom.³⁴ Alternative processes, on the other hand, may take place in a courtroom, but also may not. There is a conscious attempt to create a physical setting in ADR processes that is very uncourt-like (even where these processes are conducted in the courthouse) through such measures as informal seating arrangements, and allowing food and beverages.³⁵ The setting, however, still has the constraints of being a physical place.

The architecture and physical characteristics of a dispute resolution process impact the degree of privacy one can expect. To the extent that the place one enters to resolve his/her problem is a ‘courthouse’, then merely by entering the building he/she is in some sense exposed as being involved with an ongoing case. On the other hand, conducting a private dispute resolution process in an intimate face-to-face setting, encircled by physical boundaries, can create a secure closed setting in which parties feel safe to disclose confidential information. Nevertheless, the impact of these features is not one-directional, and the intimate setting of ADR processes, while designed as a barrier-reducing strategy, has been found hazardous for disempowered parties who under the veil of private proceedings have ignorantly agreed to an unfavourable compromise.³⁶

While public proceedings can be described as being ‘open’ and ‘accessible’, they may also serve as a barrier for certain types of parties who would be deterred from bringing their case for fear of public exposure. In those cases, the private nature of ADR processes may be more appealing, serving to reduce access barriers for those disputants while closing off the process to the outside world.³⁷ At the same time, there are parties who are ‘against settlement’³⁸ precisely because they

33 P. Cane & H.M. Kritzer, *Oxford Handbook of Empirical Legal Research*, Oxford University Press, 2010, pp. 616-617.

34 O.G. Chase & J. Thong, ‘Judging Judges: The Effect of Courtroom Ceremony on Participant Evaluation of Process Fairness-Related Factors’, *Yale Journal of Law & the Humanities*, Vol. 24, 2012.

35 Menkel-Meadow, 2010, pp. 274-276.

36 L. Nader, *No Access to Law: Alternatives to the American Judicial System*, Academic Press, 1980, pp. 64-67.

37 This is true for large corporations as well as individual complainants; see J.M. Nolan-Haley, ‘Court Mediation and the Search for Justice through Law’, *Washington University Law Quarterly*, Vol. 74, 1996, p. 54; M. Rowe, ‘People Who Feel Harassed Need a Complaint System with Both Formal and Informal Options’, *Negotiation Journal*, 1990.

38 O.M. Fiss, ‘Against Settlement’, *Yale Law Journal*, Vol. 93, 1983. (We draw on Fiss’ terminology, but it should be noted that his objection to settlement is grounded in the public interest, while we refer here to disputants’ preferences.)

would like to make their problem and resolution known to a broader circle of interested or potentially interested parties.³⁹

ADR can be differentiated from courts on the basis of the nature of the physical space in which the proceeding is held, but it is important to be aware that they are both dependent on physical spaces. The differing qualities of the particular physical space used, along with the manner in which information is communicated and processed, shape and reinforce different values, but the fact that both require a physical setting leads them to share some common elements as well, elements that we shall describe below. While some processes may involve higher access barriers than others, all dispute resolution avenues, whether they take place in a courtroom or an office space, carry some costs and screen out certain cases or potential disputes. Furthermore, with the broad institutionalization of ADR in courts, the physical boundaries for each of these categories have become more similar, rendering difference a matter of degree rather than kind.

2.2 Conceptual Boundaries

Conceptual boundaries are present in every field and discipline. In ADR, they allow us to distinguish between formal and informal avenues of dispute resolution, between resolution and prevention, and among the different processes within the ADR field. The delineation of conceptual boundaries has served as a backbone for the eager adoption of ADR mechanisms in the twentieth century, as demonstrated in Professor Sander's vision of a 'multi-door courthouse' – a court that would offer a multitude of processes for addressing different types of conflicts involving parties with varying characteristics,⁴⁰ and in Lon Fuller's earlier work, which exemplifies an essentialist view of the various dispute resolution processes.⁴¹

Sander's approach became a leading paradigm for the institutionalization of dispute resolution programmes. The reality of alternatives intertwined with the formal court process generated a wide array of writing on such matters as the unique characteristics of each dispute resolution avenue;⁴² the relationship between formal and informal dispute resolution;⁴³ policy considerations relating to the adoption of ADR mechanisms and the form of institutionalization chosen;⁴⁴ criteria for forum selection across dispute types and disputant charac-

39 O. Rabinovich-Einy, 'Balancing the Scales: The Ford-Firestone Debacle, the Internet, and the Future Dispute Resolution Landscape', *Yale Journal of Law & Technology*, Vol. 6, 2003, p. 4.

40 F.E.A. Sander, 'Varieties of Dispute Processing', in A. Levin & R. Wheeler (Eds.), *The Pound Conference: Perspectives on Justice in the Future*, West Publishing Co., 1979.

41 C. Menkel-Meadow, 'The Mothers and Fathers of Invention: The Intellectual Founders of ADR', *Ohio State Journal on Dispute Resolution*, Vol. 16, No. 1, 2000, pp. 14, 37.

42 Sander, 1979; A.K. Schneider, 'Building Pedagogy of Problem-Solving: Learning to Choose Among ADR Processes', *Harvard Negotiation Law Review*, Vol. 5, 2000.

43 R. Mnookin & L. Kornhauser, 'Bargaining in the Shadow of the Law: The Case of Divorce', *Yale Law Journal*, Vol. 88, 1979.

44 Menkel-Meadow, 2010, pp. 351-369, 413-482.

teristics;⁴⁵ certification, training and education of third-party neutrals⁴⁶ and ethical dilemmas and codes for ADR practitioners.⁴⁷

Sander's basic insight regarding the need to tailor dispute resolution processes to the characteristics of the dispute and the parties also represented an important step in the development of ADR theory in the following decades in the area of DSD. As we shall discuss later, all the categories of dispute resolution processes and, indeed, the differentiation of dispute resolution from dispute prevention are based on differences in how information is used. Implementing a new technology may bring efficiencies but, over time, can prove disruptive in that boundaries that are foundational begin to erode.

Conceptual boundaries in dispute resolution are premised, first and foremost, on a dichotomous opposition between 'courts' and 'ADR'.⁴⁸ One is formal, while the other is informal. One operates on a systemic level and can establish standards and precedents, while the other is more focused on individual disputants. One is based on predetermined and fixed procedures and remedies, while the other is flexible and tailored. One is open and public, while the other is confidential and private. One highlights logic and reason, while the other leaves room for discussion of needs and emotions. These distinct characteristics have served to promote different goals. While most dispute resolution processes would describe 'dispute resolution' as a clear goal, courts – being a system – would also commit to the goals of development of law, precedent-setting, dispute prevention and social change, as important, perhaps primary, goals.⁴⁹

Within the ADR field, conceptual boundaries have served to further distinguish between interest and rights-based processes, creating categories and subcategories of process types. Within each category, processes such as mediation have tended to have set, predetermined characteristics, such as confidentiality, flexibility and a skeletal framework for conducting the process,⁵⁰ making them distinguishable from other types of processes and creating room for different schools and styles to develop within each process type.⁵¹

Dispute resolution literature has tended to view the freedom and flexibility to select one's own dispute resolution process as a principal advantage of ADR, and by establishing clear conceptual boundaries between courts and ADR on the one hand, and within the ADR field on the other hand, informed choice became feasi-

45 Sander, 1979.

46 Menkel-Meadow, 2010, p. 26.

47 *Id.*, 2010, pp. 370-379, 498-519.

48 Sturm & Gadlin, 2007.

49 S.D. Smith, 'Reductionism in Legal Thought', *Columbia Law Review*, Vol. 91, 1990; Fiss, 1983.

50 *But see* N. Welsh, 'You've Got Your Mother's Laugh What Bankruptcy Mediation Can Learn From the Her/History of Divorce and Child Custody Mediation', *ABI Law Review*, Vol. 17, 2009, pp. 432-441 (describing the wide range of practices that fall under the definition of 'mediation', which may blur, to some extent, the distinction between mediation and other processes). At the same time, as is apparent from Welsh's writing, most mediation that takes place in court settings (which accounts for a large portion of face-to-face mediations in the United States) tends to meet a particular mould (*see* Riskin & Welsh, 2008, p. 864).

51 Menkel-Meadow, 2010, pp. 257-265.

ble.⁵² As the subfield of DSD developed and gained acceptance, these conceptual boundaries were further developed, elaborated and celebrated, highlighting the value of deliberate design.⁵³ Diversity and creativity were hailed, but were often at odds with a reality in which few process types were actually employed and those processes that were used typically had fixed, predetermined attributes. As DSD evolved and institutionalized ADR in courts and elsewhere spread, the goals of ADR processes also evolved and extended beyond the resolution of individual disputes to include norm elaboration,⁵⁴ dispute prevention⁵⁵ and even social change,⁵⁶ further eroding some of the stark differences between these processes and the court system and providing counterarguments to critics of ADR.

Furthermore, a close examination of the range of processes that fall within the umbrella term of ADR undermines the dichotomous separation between ADR and courts, revealing a spectrum of processes that have varying levels of privacy and flexibility, with some processes being quite similar to litigation, while others being more distinct from the formal venue.⁵⁷ Indeed, some of the literature has undermined the perception of courts as a formal, strict and public arena demonstrating how 'uncourt-like' courts often are.⁵⁸ It seems that these conceptual boundaries have been questioned practically from the moment they were established. With the literature describing the 'co-optation' of ADR by courts,⁵⁹ bargaining taking place 'in the shadow of the law',⁶⁰ and courts advancing settlement through flexible and undocumented 'managerial' approaches,⁶¹ similarities were highlighted (although some basic distinctions remained). These subcurrents were buoyed by the broad institutionalization of ADR and the commingling of ADR with courts, which contributed to the erosion of conceptual boundaries between formal and informal dispute resolution processes and of the unique characteristics of each process. As we discuss below, new technologies are playing a significant role in further eroding seemingly firm conceptual boundaries. Nevertheless,

52 *Id.*, pp. 226-227.

53 S. Smith & J. Martinez, 'An Analytic Framework for Dispute Systems Design', *Harvard Negotiation Law Review*, Vol. 14, 2009.

54 Sturm & Gadlin, 2007.

55 Rabinovich-Einy & Katsh, 2012, pp. 181-182.

56 R.A. Baruch Bush & J.P. Folger, *The Promise of Mediation: The Transformative Approach to Conflict*, John Wiley & Sons, 2004 (describing the goals of transformative mediation as 'empowerment' and 'recognition', in the hope that the educational and moral process individuals undergo in a mediation process will contribute to a broader societal transformation).

57 S.B. Goldberg, *Dispute Resolution: Negotiation, Mediation, Arbitration and Other Processes*, Aspen Publishers, 1999, pp. 4-5.

58 Shapiro, 1986, pp. 1-64.

59 Menkel-Meadow, 1991.

60 Mnookin & Kornhauser, 1979.

61 J. Resnik, 'Managerial Judges', *Harvard Law Review*, Vol. 96, 1982.

the clear distinction between courts and ADR has persisted in the literature and in policies on the ground.⁶²

2.3 Psychological Boundaries

Another type of boundary in the dispute resolution arena is that of psychological boundaries. The process of dispute evolution and transformation has been presented in the literature as a three-stage process, 'naming, blaming and claiming', much of which takes place within the aggrieved person's mind.⁶³ The first stage, 'naming', has to do with the ability to recognize that an injury has occurred, and the following stage – 'blaming' – involves the ability to connect such injury to a particular source that is at fault. These two phases require knowledge of facts and familiarity with norms. But even the third stage, that of 'claiming', which has to do with the voicing of a grievance before the party at fault, requires psychological resilience on top of financial resources and the backing of a support group. Psychological barriers can, and often do, stand in the way of the evolution of disputes, in some instances because an individual is unaware of the existence of a dispute, while in other cases they prefer to 'lump it'.⁶⁴ Psychology acts as a boundary in this context both in the sense that it separates dispute transformation stages from one another, as well as a barrier that may prevent potential disputes from surfacing.

A significant strand of the ADR literature has focused on barriers to dispute resolution⁶⁵ that involve cognitive biases in resolution efforts.⁶⁶ Cognitive biases, or heuristics, are another form of psychological boundary, shaping our understanding of disputes and dispute resolution efforts.⁶⁷ The manner in which information is framed and presented impacts the way we feel about it and react to it (the 'framing effect').⁶⁸ We may find an offer to be favourable or unfavourable depending on the identity of the person making the offer ('reactive devaluation'),⁶⁹ we view an offer as generous or insufficient depending on whether it belongs to us or not (the 'endowment effect')⁷⁰ and may address an easily attained favourable offer with suspicion (the 'winner's curse').⁷¹

62 One exception might be specialty or 'problem-solving courts' for different kinds of problems. See L. Neyfakh, 'The Custom Justice of "Problem-Solving Courts": A New Kind of Court Is Reshaping the American Legal System – With Little Oversight', *Boston Globe*, 23 March 2014, <www.boston-globe.com/ideas/2014/03/22/the-custom-justice-problem-solving-courts/PQJLC758Sgw7qQchiefT6MM/story.html>.

63 See *supra* note 21 and accompanying text.

64 Miller & Sarat, 1982, p. 52.

65 See Hensler, 2003, p. 174; Senft & Savage, 2003.

66 L. Ross, 'Reactive Devaluation in Negotiation and Conflict Resolution', in Arrow *et al.*, 1995. A. Tversky & D. Kahneman, 'Conflict Resolution: A Cognitive Perspective', in Arrow *et al.*, 1995.

67 C. Menkel-Meadow, 'Legal Dispute Resolution in a Multidisciplinary Context', *Journal of Legal Education*, Vol. 54, 2004, p. 13.

68 J.D. Hanson & D.A. Kysar, 'Taking Behavioralism Seriously: The Problem of Market Manipulation', *New York University Law Review*, Vol. 74, 1999, pp. 684-687.

69 M.H. Bazerman & M.A. Neale, *Negotiating Rationally*, Simon & Schuster, 1994.

70 Hanson & Kysar, 1999, pp. 672-676.

71 R.H. Thaler, 'Anomalies: The Winner's Curse', *Journal of Economic Perspectives*, Vol. 2, 1988.

The above are a few of many examples of the ways in which cognitive biases can give rise to misunderstandings or unrealistic expectations, which in turn generate conflict or escalate existing conflicts after they have erupted. Cognitive biases also colour our reactions and actions during dispute resolution efforts, making resolution more difficult, in particular absent the involvement of a third party. But the third-party neutral is also not immune to the impact of cognitive biases, which may shape his/her understanding of the dispute, as well as his/her interactions with the parties during the resolution efforts and the course of action chosen by him/her in addressing the dispute.⁷² This is also true where dispute system designers make design choices, where such choices may be guided by heuristics. Cognitive biases have therefore simultaneously fuelled disputes and dispute resolution efforts and have served as barriers that the field constantly strives to overcome by elaborating dispute resolution process options and design as well as third-party intervention techniques.

Research on procedural justice presented another important layer of psychological boundaries separating legitimate dispute resolution processes from those that are perceived by disputants as being unfair. This research has uncovered the significant, even principal, role procedural elements play in the perceived fairness of the process used to arrive at an outcome, colouring the legitimacy of the outcome and institution.⁷³ Both qualitative⁷⁴ and quantitative⁷⁵ research confirmed that in determining the fairness of dispute resolution processes, litigants attach a great deal of significance to the following factors: (1) whether they were given an opportunity to 'tell their story' ('opportunity for voice'), (2) whether the third party considered their views, (3) whether the third party 'treated them in an even-handed and dignified manner' and (4) the 'impartiality of the third party'.⁷⁶

Perhaps counterintuitively, research on procedural justice demonstrated that the procedural elements described above colour disputants' impressions of the fairness of the substantive outcome, meaning that a disputant who 'won' his/her case but viewed the procedure as unfair would be unhappy, while a party who 'lost' their case but underwent a process that met the characteristics associated

72 C. Izumi, 'Implicit Bias and the Illusion of Mediator Neutrality', *Journal of Law & Policy*, Vol. 34, 2010.

73 E.A. Lind & T.R. Tyler, *The Social Psychology of Procedural Justice*, Springer, 1988; N. Welsh, 'Remembering the Role of Justice in Resolution: Insights from the Procedural and Social Justice Theories', *Journal of Legal Education*, Vol. 54, 2004; J.W. Thibault & L. Walker, *Procedural Justice: A Psychological Analysis*, Lawrence Erlbaum Associates, 1975.

74 J.M. Conley & W.M. O'Barr, 'Litigant Satisfaction Versus Legal Advocacy in Small Claims Court Narratives', *Law & Society Review*, Vol. 19, 1985.

75 T.R. Tyler, 'Citizen Discontent with Legal Procedures: A Social Science Perspective on Civil Procedure Reform', *American Journal of Comparative Law*, Vol. 45, 1997, p. 888.

76 N. Welsh, 'Making Deals in Court-Connected Mediation: What's Justice Got to Do With It?', *Washington University Law Review*, Vol. 79, 2001, p. 817. Other studies mention additional, sometimes complementing elements, but the components described by Prof. Welsh seem to be widely agreed upon.

with procedural fairness would be content.⁷⁷ This line of research has provided an important prism through which both court proceedings and ADR processes could be evaluated and critiqued,⁷⁸ as well as a significant component in the evolution of DSD theory and practice,⁷⁹ with procedural justice serving as a ‘fairness heuristic’.⁸⁰ Social science has provided several explanations for the significance of procedural justice, ranging from instrumental reasons (‘social exchange theory’) to symbolic ones under which the elements of procedural justice reflect the disputant’s social status (‘group value theory’). While these theories would seem to apply most strongly to decision-based processes such as litigation and arbitration, they have been applied to the mediation process as well, given the role played by the mediator who is often seen as a representative of the court system.⁸¹

Procedural justice, therefore, has served as a boundary in that it provided a filter through which conceptual boundaries could be strengthened and justified, both on a design level (justifying a certain mix of procedural traits) and on an individual level (justifying choice of one process over another). On a deeper level, this whole line of research served to underscore another important boundary that has defined the dispute resolution field, the division between procedure and substance.

2.4 Professional Boundaries

Dispute resolution has become a professional activity, and the boundary-setting activity has shifted from the professional/layperson realm to the question of what constitutes professional expertise and capabilities for various processes (e.g., mediation or arbitration) and across settings (e.g., courts vs. organizations). One of the principal debates centred on the question of the need for a legal background for ADR practitioners, which was often echoed in the procedural versus substantive expertise debate, but in many respects was really about the legal profession’s battle over its territory and place. In other words, demand for ‘expertise’ served the legal profession’s attempts to create a clear boundary between what was covered under its sole mandate and what was not and to include ADR within such turf.

Many resisted the legal occupation of the ADR field and argued for the need for diverse input in order to maintain the different goals and characteristics of

77 J.M. Connely & W.M. O’Barr, ‘Hearing the Hidden Agenda: The Ethnographic Investigation of Procedure’, *Law & Contemporary Problems*, Vol. 51, 1998, pp. 184-188; Lind *et al.*, ‘In the Eye of the Beholder: Tort Litigants’ Evaluations of their Experiences of the Civil Justice System’, *Law & Society Review*, Vol. 24, 1990.

78 Welsh, 2001.

79 Bingham *et al.*, ‘Dispute System Design and Justice in Employment Dispute Resolution: Mediation at the Workplace’, *Harvard Negotiation Law Review*, Vol. 14, 2009, pp. 38-42.

80 E.A. Lind, ‘Procedural Justice, Disputing and Reactions to Legal Authorities’, in A. Sarat (Ed.), *Everyday Practices and Trouble Cases*, Northwestern University Press, 1998, cited in Welsh, 2001, p. 819, n. 151, stating that ‘process information anchors the fairness judgment to such extent that outcome information can only make relatively minor adjustments’.

81 Welsh, 2001, pp. 830-838.

ADR processes.⁸² The majority of ADR processes, however, were conducted in the courthouse or referred from the courts to ADR centres and practitioners, with lawyers present and with the majority of third-party neutrals being active or former legal practitioners.⁸³ This reality generated, as described above, harsh criticism within the ADR community over certain practices that were deemed by some illegitimate while others saw them as an inherent part of the ADR spectrum and a justification for lawyers' dominant role in these processes.⁸⁴

ADR expertise was further compartmentalized with lawyers showcasing ADR departments and boasting ADR advocacy skills,⁸⁵ and some ADR practitioners developing into such areas of expertise as DSD and ombudsmen, delivering such services to and within organizational and court settings.⁸⁶ Designers were often trained in ADR or/and organizational development and possessed expertise in conducting the organizational dispute analysis that would underlie the DSD and evaluation. While the literature emphasized the need to consult those affected by the process being designed, the use of an expert designer was generally also seen as necessary.⁸⁷ In this environment, internal dispute handlers, such as ombudsmen, became more widely used to oversee these newly established systems.⁸⁸ At the same time, the frequency with which ADR services were performed on a voluntary basis in community and court settings undermined somewhat the efforts to portray ADR practice as a field in its own right that involves the delivery of professional services.⁸⁹

Nevertheless, ADR trainings became widespread, with many ADR centres and individuals offering these trainings, also as a way to supplement their income. Over time, ADR also became an area of academic studies, with some courses offered within law schools, while in other cases they have been offered as part of an interdisciplinary programme, often culminating in professional certificates as well as an academic degree.⁹⁰ Despite these developments, the argument on the nature of ADR expertise and the requirements for delivering such services was never quite resolved.⁹¹ In practice, in order to receive case referrals and enjoy confidentiality, ADR practitioners had to meet regulatory requirements, and in

82 L.P. Love, 'Top Ten Reasons Why Mediators Should Not Evaluate', *Florida State University Law Review*, Vol. 24, 1997, pp. 941-942.

83 Hensler, 2003, pp. 172, 185, 187.

84 Love, 1997; L.L. Riskin, 'Decision-Making in Mediation: The Old Grid and the New Grid System', *Notre Dame Law Review*, Vol. 79, 2003.

85 This can be evidenced by the large number of law firms that now have ADR departments or employ ADR specialists.

86 *Supra* note 13 and accompanying text.

87 O. Rabinovich-Einy & E. Katsh, 'Lessons from Online Dispute Resolution for Dispute Systems Design', in M.S. Abdel Wahab, E. Katsh & D. Rainey (Eds.), *Online Dispute Resolution: Theory and Practice*, Eleven International Publishing, 2012.

88 H. Gadlin, 'The Ombudsman: What's in a Name?', *Negotiation Journal*, Vol. 16, 2000.

89 S.J. Rogers, 'Ten Ways to Work More Effectively with Volunteer Mediators', *Negotiation Journal*, Vol. 7, 1991, pp. 204-205; S. Oberman, 'Style vs. Model: Why Quibble?', *Pepperdine Dispute Resolution Law Journal*, Vol. 9, 2008, p. 42.

90 Hensler, 2003, p. 166.

91 Menkel-Meadow, 2013, p. 14.

certain cases have specific disciplinary training, with a large portion of ADR practitioners having legal backgrounds.

The various boundaries – physical, conceptual, psychological and professional – are not independent of each other. For example, the question of privacy in dispute resolution involves conceptual boundaries as a trait separating formal from informal processes, but also implicates physical boundaries, as explained above. Similarly, issues relating to professional boundaries, such as substantive expertise of third parties, also operate on a conceptual level. Nevertheless, these boundaries are significant and serve important ends, enhancing dispute resolution mechanisms' legitimacy, appeal and effectiveness, as explained below.

In the following section, we explore further the need for boundaries and why boundary-setting can be seen as providing the infrastructure of a field.

3. The Role of Boundaries in Dispute Resolution

Boundaries serve several important ends. They act as constraints on how an institution is used. They serve as an institution's unseen infrastructure and thus shape preferences, capabilities and values. Finally, they help generate consistency and reinforce institutional legitimacy and trust.

In the dispute resolution field, the constraining function limits the number of complaints by screening out and triaging some disputes when institutional and human capacity is limited. Courts, even as costly, inconvenient and intimidating places, suffer from an overload of cases. If access barriers to courts were reduced, absent dramatic changes (that we would argue require a deep change in the implementation of digital technology), they would not be able to handle the added caseload.

Similarly, ADR providers rely on a given institutional and human capacity. For judges and ADR professionals, a case or a dispute requires a certain amount of time to decide or resolve. For the institution, handling a given number of cases requires sufficient personnel, equipment, storage, work space etc. Convening in a physical space, using physical storage and having human third parties address the dispute inevitably place constraints on that person's or entity's dispute-handling capabilities and require that some disputes not be attended to, or, in other words, that access barriers (or boundaries) operate to screen out certain problems, labeling them as *de minimis*, or as not 'constituting a legal cause of action', as 'premature' or 'moot', or as not meeting 'jurisdictional' requirements.

A second set of boundaries in dispute resolution function to accommodate or reflect prevailing values and preferences. Values and preferences represent a particular society's set of favoured choices at a given time and place. It is therefore perhaps not surprising that the model of dispute resolution that underlies much of the contemporary theory and practice in the field reflects American society's cultural preferences. While the roots of the contemporary ADR movement are quite diverse, they nevertheless emerged in the United States at a particular point in time and are reflective of American culture, broadly understood, in that they share some of the following commonalities: these processes are based on an indi-

vidualistic understanding of dispute resolution processes – their logic and goals, they rely on the expertise of a detached, external neutral, and draw on the power of the state for dispute referral and, ultimately, for enforcement of resolutions reached. As Auerbach aptly stated, while these processes seemingly reflect ‘the pursuit of justice without law’, such a quest is inextricably tied to the central role of law in American culture and society.⁹²

Two features of contemporary ADR processes seem particularly representative of predigital era preferences and values: confidentiality and third-party neutrality. Confidentiality has been a core feature of mediation and arbitration processes in the last few decades and a principal source of attraction for disputants, in lieu of the public court system.⁹³ In mediation, confidentiality has allowed parties to disclose their true concerns and needs, overcoming their fear of strategic use of such information by their counterparts should the dispute end up in litigation.⁹⁴ While confidentiality has always posed somewhat of a risk owing to the existence of loopholes, the combination of contractual agreements and legal protection has been viewed as a sufficiently strong guarantee of the privacy of mediated resolution efforts.⁹⁵

Similarly, arbitration presents a discrete avenue for parties who seek to resolve their conflict away from the public view. Such confidentiality is typically protected in the agreement between the parties and has been viewed with suspicion by critics decrying the privatization of justice and the option for powerful repeat player parties to ensure that awards remain unknown to their future adversaries.⁹⁶ While some proponents of privacy in arbitration (very much like in mediation) underscore its contribution to party openness,⁹⁷ others, more cynically perhaps, view privacy’s main advantage in arbitration as the ability to maintain control over dispute-related information *vis-à-vis* the public, competitors and future opponents.⁹⁸ While some question the degree to which arbitration is actually confidential, it remains true that most people view it as such.⁹⁹

Interestingly, in the past, some ADR processes were conducted in a more open manner.¹⁰⁰ Even in the early days of the modern ADR movement, we find experimentation with different models of ADR processes, some of which were conducted in the open as part of a view of these processes as a source of community empowerment and a site in which community norms are defined. Generally

92 Auerbach, 1983, pp. 15-17, 138-147.

93 Section 2.2.

94 O. Rabinovich-Einy, ‘Technology’s Impact: The Quest for a New Paradigm for Accountability in Mediation’, *Harvard Negotiation Law Review*, Vol. 11, 2006, p. 265.

95 Menkel-Meadow, 2010, pp. 327-351.

96 A.J. Schmitz, ‘Untangling the Privacy Paradox in Arbitration’, *Kansas Law Review*, Vol. 54, 2006, pp. 1232-1234.

97 *Id.*, p. 1215.

98 *Id.*, pp. 1229-1232.

99 *Id.*, p. 1212.

100 The Buchler court’s arbitration proceedings were broadcast on the radio (a development frowned upon by some). See Auerbach, 1983, p. 85.

speaking, though, most contemporary ADR processes have followed the US model, which enshrines confidentiality.¹⁰¹

Equally significant in this context are the changes that have taken place over the years in terms of legal protection of privacy. The concept of privacy itself is a social construct, reflecting accepted values and common expectations, and therefore legal protection of privacy is a rather recent development.¹⁰² It is not surprising that the dispute resolution processes that emerged in a period in which privacy in general and informational privacy in particular are viewed as an important social value, reflect such preference and receive legal backing and protection for such structure.

A similar story can be told with respect to third-party neutrality. While current expectations of a 'fair' and 'just' dispute resolution process are that it be based on 'neutral', 'objective', 'detached' and 'even-handed' decision-making and intervention, this has not always been the case. In the past, when dispute resolution took place in close-knit communities whose members shared common values and maintained close social ties, third-party decision-makers were often chosen because of their familiarity with the parties or the case or the social status and power.¹⁰³ These were typically 'strong, white, men', whose wealth and success were seen as indicators of wisdom and problem-solving capabilities, and therefore as ensuring both what would be perceived as a fair outcome and its swift execution.¹⁰⁴

In their current mode, ADR processes are no longer grounded in the thick local social structures that gave rise to such mechanisms in the past. As a result, a modern conception of an expert decision-maker substituted for the understanding of what would constitute a mediator or arbitrator in traditional societies. Under this contemporary view, mediators and arbitrators, like judges, draw their legitimacy from formal training and expertise, and are expected to apply such expertise in an even-handed and consistent manner across cases.¹⁰⁵ Such a view of third-party expertise and conduct seems to correspond to disputant expectations and values as reflected in the procedural justice research.¹⁰⁶

Nevertheless, both neutrality and confidentiality are facing pressures from a changing reality, in which the flow of information is becoming more and more difficult to control and the ideals of complete confidentiality or a detached neutral seem increasingly unrealistic, and, for some, undesirable, as these values and preferences are being questioned.¹⁰⁷

Finally, a third and important rationale for boundaries in dispute resolution mechanisms has been their contribution to such processes' legitimacy. Conceptual boundaries and the dichotomous positioning of formal versus informal dis-

101 Rabinovich-Einy, 2006, pp. 263-264.

102 E. Katsh, *The Electronic Media and the Transformation of Law*, Oxford University Press, 1991, p. 189.

103 Auerbach, 1983, pp. 70-71, 75.

104 Shapiro, 1986, p. 6.

105 *Id.*, p. 5.

106 *Supra* notes 69-77 and accompanying text.

107 Rabinovich-Einy & Katsh, 2012, pp. 52-53.

pute resolution mechanisms have served to enhance these processes' appeal and legitimacy. As was recognized in the literature several decades ago, the legitimacy of informal dispute resolution avenues stems from their consensual and voluntary nature.¹⁰⁸ 'Consent' is what allows parties to continue and trust the process and view the outcome as legitimate even when the resolution is unfavourable to them. In formal avenues, there is a much lower degree of consent, sometimes it is practically non-existent, and, accordingly, such processes' legitimacy stems from a different source – the perceived inevitability of the outcomes under pre-existing rules that are applied consistently across cases and parties.¹⁰⁹ The boundary terminology that has existed between formal, public, structured and uniform processes on the one hand and informal, private, flexible and tailored processes on the other hand has served to reinforce these different sources of legitimacy, even in the face of a somewhat different reality.

Within these process types, the boundary between procedure and substance has served to further reinforce the legitimacy of the various dispute resolution processes and institutions on different levels, including the professional and psychological realms. A distinction was made between substantive and procedural expertise, colouring the procedural know-how gained by mediators and arbitrators with a professional halo, enhancing perceptions of fairness and decreasing impressions of arbitrary and intuition-based decision-making, which do not comport with modern-day expectations of justice. Similarly, as mentioned previously, the distinction between procedural justice and substantive justice theories has uncovered the connection between procedural elements (which comprise some of the physical and conceptual characteristics of dispute resolution bodies) and what constitutes a fair and legitimate dispute resolution process in the eyes of disputants.¹¹⁰

In the following section, we show that information technologies are playing an important (albeit not a sole) role in the blurring of these boundaries by operating across geographical distances, processing and collecting data in novel ways, opening up opportunities for lay involvement and lowering costs and other access barriers. They are generating new types of dispute resolution processes that offer a unique mix of traits that defy traditional categorization and goals, and rely on automation, freeing dispute resolution from some of the seemingly inherent constraints it was subject to in the past.

4. A Field in Flux: The Introduction of Digital Technology and the Blurring of Traditional Boundaries

Originally, the term ODR referred to the resolution of conflicts that arose online (namely in the e-commerce setting or online social forums). Over time, use of such processes has expanded, and technological tools and systems are increasingly being offered for the resolution of traditional offline disputes. Growth of

108 Shapiro, 1986, pp. 2-5.

109 *Id.*, p. 1.

110 *Supra* notes 69-77 and accompanying text.

ODR was evidenced in the development and adoption of ODR in new settings such as government agencies,¹¹¹ the EU regulatory framework¹¹² and international bodies,¹¹³ extending beyond the more predictable milieu of private online entities.

As use of ODR expands, the question arises as to what differentiates ODR from traditional forms of dispute resolution and what impact ODR will have on the various forms of ADR. ODR's unique features revolve around the following: (1) communication at a distance and (2) the intelligence of the machine. These capabilities are attractive because they add flexibility, efficiencies, capabilities and expertise. Online communication and data-driven functionalities can provide both new tools and approaches to managing interactions and performing informational tasks such as brainstorming, identifying options and clarifying interests. The more powerful the tools become and the more familiar parties are with the tools, the less resistant they are likely to be to processes that do not require face-to-face encounters. Developments in the future can be expected to provide screens with finer resolution, thus facilitating the idea that face-to-face communication can occur at a distance. The displacement of ADR by ODR, however, is likely to result more from intelligent software that provides tools that were not present at all with ADR. As this occurs, we can expect challenges to arise to the various boundaries we have discussed above.

While the appeal of ODR for disputes arising out of online activities is often obvious and is related to the lack of real alternatives, in the case of the application of ODR tools for offline disputes, the main advantages of ODR have been perceived to be the accessibility, low cost and speed of communication through such tools.¹¹⁴ Tools were developed for conducting automated negotiation,¹¹⁵ online mediation¹¹⁶ and technology-assisted arbitration.¹¹⁷ Automated negotiation in particular was offered in various formats such as blind bidding¹¹⁸ and negotiation support systems,¹¹⁹ each assisting parties to overcome different types of barriers and promoting different goals and solutions. Over the years additional advantages have been recognized, which extend beyond efficiency-related considerations, and relate to the potential of new technologies to overcome disputant biases and facilitate parties in reaching better, *Pareto-optimal* resolutions.¹²⁰ These

111 Rabinovich-Einy & Katsh, 2012, pp. 190-194.

112 P. Cortes, 'A New Regulatory Framework for Extra-Judicial Consumer Redress: Where We Are and How to Move Forward', *Legal Studies*, forthcoming 2014.

113 C. Rule, V. Rogers & L.D. Duca, 'Designing a Global Consumer Online Dispute Resolution (ODR) System for Cross-Border Small Value – High Volume Claims – OAS Developments', *Uniform Commercial Code Law Journal*, Vol. 42, No. 3, 2010.

114 O. Rabinovich-Einy, 'Balancing the Scales: The Ford-Firestone Case, the Internet, and the Future Dispute Resolution Landscape', *Yale Journal of Law & Technology*, Vol. 6, 2006, pp. 29-30.

115 See, e.g., <www.cybersettle.com>, <www.smartsettle.com>.

116 See, e.g., <www.juripax.com>.

117 See, e.g., <www.wipo.int/amc/en/arbitration/online/index.html>.

118 <www.cybersettle.com>.

119 <www.smartsettle.com>.

120 E.M. Thiessen & J. McMahon, 'Beyond Win-Win in Cyberspace', *Ohio State Journal on Dispute Resolution*, Vol. 15, 2000.

qualitative advantages are perhaps even more salient in the second domain in which ODR has developed over the last two decades – the realm of ODR systems.

Technological capabilities for creating ODR systems, coordinated collections of tools and resources, are beginning to distance ODR from ADR by breaking down some of the barriers discussed earlier. In such systems, ODR tools are being used within a closed setting by a limited (but potentially very large) number of users who are engaged in ongoing interactions with other users and may experience similar types of problems over time. Originally, ODR systems were developed for online disputes that arose in the context of online communities. The goal, in such systems, was to combine resolution with prevention. The paradigmatic example of an ODR system is the eBay dispute resolution mechanism, which is well known for its high usage and impressive success rates.¹²¹ eBay, by studying patterns of disputes and developing a system that can handle large numbers of repetitive types of conflicts, has managed to resolve such disputes early on and at a low cost (an essential feature given the low dollar value of many, although certainly not all, eBay transactions). No less important, though, has been the contribution of eBay's ODR system to the realm of dispute prevention. By studying the data uncovered in the dispute resolution processes, eBay has managed to identify common sources of problems and to structure information and services on its site so that these problems do not recur.¹²²

Another elaborate ODR system that has emerged in the online context is the one established on Wikipedia.¹²³ The system offers its users a variety of online parallels to traditional ADR processes (*e.g.*, negotiation, mediation and arbitration), as well as some new variants (such as online polling). Interestingly, some of the elements of the Wikipedia system were designed 'bottom up', generated by users with no expertise in dispute resolution. Accordingly, the features of such processes were atypical of the traditional dispute resolution landscape (but reflective of the online culture in general and Wikipedia in particular), providing an open mediation process in which dispute resolution proceedings and resolutions were widely available to public viewing and scrutiny.¹²⁴ Alongside its dispute resolution efforts, Wikipedia has also been focused on dispute prevention, drawing on technological tools not only for studying patterns of disputes and effective resolution strategies, but also for automatically detecting such problems as illegitimate editing of content on its site and deleting such content immediately, even before abuse has been reported by users.¹²⁵

Both eBay and Wikipedia understood early on that by offering effective dispute resolution mechanisms that were integrated with the site's (or community's) principal mission, they could not only satisfactorily address individual disputes but were able to prevent problems, thereby enhancing trust in the site and improving its content and performance. In this mission, technology was not only

121 Rabinovich-Einy & Katsh, 2012, pp. 169-175.

122 *Id.*, p. 181.

123 See the Wikipedia entry on dispute resolution, <http://en.wikipedia.org/wiki/Wikipedia:Dispute_resolution>.

124 Rabinovich-Einy & Katsh, 2012, p. 49.

125 *Id.*, p. 56.

a by-product of such sites' online operations but proved to be an invaluable tool in detecting problematic patterns and instituting effective, often automated, solutions. These lessons learned by online entities that had no choice but to think in terms of a dispute system are not likely to be confined to such entities in the future, obscuring the traditional dichotomous view of formal dispute resolution as one that operates on a systemic level and advances broad goals, as opposed to ADR processes that operate on an individual level and promote the resolution of individual disputes. This process has already begun with some offline organizations and companies establishing internal conflict management systems, as described above.¹²⁶

Over the years, ODR has gradually become accepted as part of the ADR field, with its use covering both offline and online disputes. For a field, such as ADR, that has always emphasized the value of resolving problems face-to-face, acceptance of the idea of using technological tools to work with parties at a distance has been a challenge.¹²⁷ Even the adoption of tools to supplement traditional processes has occurred only little by little. Increasingly, however, practitioners have come to understand that software applications can enhance their skills and provide new opportunities and processes for effective and efficient intervention.¹²⁸

We can expect the use of ODR to expand even further in light of three developments: (1) changing views towards the online medium and digital communication, (2) development of ever more powerful software and (3) ongoing dissatisfaction with the functioning of courts and ADR. The first development has to do with the growing reliance on digital communication in people's lives in modern-day society. Initially, these tools were used to communicate with and shop from distant strangers. We currently use digital communication to interact with those closest to us, touching on mundane but also more sensitive and complicated matters. As the online–offline distinction continues shifting and the line separating the online 'space' from the physical surroundings is being blurred, our under-

126 Familiar examples include The USPS, which established a transformative mediation program called REDRESS for employment discrimination disputes (see Bingham *et al.*, 2009, pp. 24–47) and the NIH's ombudsman office headed by Howard Gadlin (see Sturm & Gadlin, 2007).

127 Indeed, the ODR literature has devoted a fair portion of attention to this question. See, generally, e.g., C. Rule, *Online Dispute Resolution for Business: B2B, ECommerce, Consumer, Employment, Insurance, and Other Commercial Conflicts*, Jossey-Bass, San Francisco, 2002, pp. 83–84; L.E. Teitz, 'Providing Legal Services for the Middle Class in Cyberspace: The Promise and Challenge of On-line Dispute Resolution', *Fordham Law Review*, Vol. 70, 2001; J. Goodman, 'The Pros and Cons of Online Dispute Resolution', *Duke Law & Technology Review*, Vol. 2, 2003; D.A. Larson, 'Online Dispute Resolution: Do You Know Where Your Children Are?', *Negotiation Journal*, Vol. 19, 2003; M.C. Tyler & S.S. Raines, 'The Human Face of Online Dispute Resolution', *Conflict Resolution Quarterly*, Vol. 23, 2005.

128 See, e.g., M.C. Tyler, 'Online Dispute Resolution', in M. Malkia & A. Anttiroiko (Eds.), *Encyclopedia of Digital Government*, 2007, pp. 1268–1274, available at <http://papers.ssrn.com/sol3/papers.cfm?abstract_id=934947>. This is also evidenced in the growing attention to ODR as a tool for training students in ADR. See *Ohio State Journal on Dispute Resolution*, Vol. 25, 2010, devoted to the topic.

standing on what can be performed online is also changing, making ODR more appealing for offline, potentially more complex and intimate disputes.¹²⁹

The second development concerns evolving, indeed accelerating, innovation in the use of data. The rapidly growing field of Big Data focuses on finding meaning in data that in the past was never collected or examined.¹³⁰ In the ADR field, data was routinely discarded when a dispute was resolved, and in the dispute prevention arena data was often not available. As we have stressed in this article, information processing is at the heart of both conflict resolution and prevention, and new software can be expected to increasingly empower the 'fourth party'¹³¹ and influence small as well as large disputes.

The third development has to do with the potential of technology to remedy some of the persistent problems we have been experiencing with our justice system. Despite hopes that informal justice and the concept of a 'multi-door courthouse' could improve court efficiency and result in more satisfactory processes and imaginative outcomes, the institutionalization of ADR was accompanied by fierce critiques ranging from the dangers posed to parties belonging to disadvantaged groups¹³² to the curtailment of law development and precedent-setting.¹³³ Criticism extended to proponents of ADR who were disappointed as hopes of increased speed and efficiency remained unrealized¹³⁴ and the quality of ADR processes was questioned.¹³⁵ In recent decades it has become evident that technology could dramatically enhance the efficiency of both court proceedings and alternatives through automation and 24/7 access to files from afar. Over time, other features of ODR that were initially viewed as shortcomings, such as documentation, have been seen as potentially advantageous in remedying some of the other problems associated with traditional ADR processes by allowing better monitoring, quality control, consistency and a higher degree of transparency.¹³⁶

The boundaries we have identified form a strong and largely unnoticed infrastructure and support system of both ideas and processes. As we show below, how information is employed and communicated can shape the nature of the bounda-

129 E. Katsh & J. Rifkin, *Online Dispute Resolution: Resolving Conflicts in Cyberspace*, Jossey-Bass, 2001, p. 7.

130 V. Mayer-Schönberger & K. Cukier, *Big Data: A Revolution That Will Transform How We Live, Work, and Think*, Houghton Mifflin Harcourt, 2013.

131 Beverly Woolf et al., *The Fourth Party: Improving Computer-Mediated Deliberation through Cognitive, Social and Emotional Support*, <www.nsf.gov/awardsearch/showAward?AWD_ID=0968536>.

132 T. Grillo, 'The Mediation Alternative: Process Dangers for Women', *Yale Law Journal*, Vol. 100, 1991; Delgado et al., 'Fairness and Formality: Minimizing the Risk of Prejudice in Alternative Dispute Resolution', *Wisconsin Law Review*, 1985.

133 Fiss, 1983; D. Luban, 'Settlements and the Erosion of the Public Realm', *Georgetown Law Journal*, Vol. 83, 1994.

134 L. Bernstein, 'Understanding the Limits of Court-Connected ADR: A Critique of Federal Court-Annexed Arbitration Programs', *Pennsylvania Law Review*, Vol. 141, 1993.

135 J.J. Alfani, 'Trashing, Bashing and Hashing It Out: Is This the End of "Good Mediation"?', *Florida State University Law Review*, Vol. 19, 1991; Riskin & Welsh, 2008; Hensler, 2003.

136 The decrease in privacy due to documentation and record preservation can assist in quality control, dispute prevention and monitoring performance. The intelligence of the machine can enhance efficiency and consistency through automation and, in many cases, supplement, if not replace, the expertise of the third party.

ries we have identified and, as a result, the nature of the institution, in this case the long-term evolution of dispute resolution.

4.1 *Physical Boundaries*

'The rule of law', Paul Kahn has written, 'is always over a defined territory'.¹³⁷ Less formal modes of dispute resolution can ignore territorial borders but, in the past, could not ignore the constraints of the physical world. When meetings and interactions become virtual and physical meetings are displaced, dispute resolution is transformed from a service occurring in a place to one not dependent on location.¹³⁸ This erosion of the physical has many consequences.

This transition, for example, lowers barriers for voicing complaints and concerns and to initiating a dispute resolution process. Merely placing forms online or providing easy access to customer service phone numbers tends to increase the number of complaints. When eBay adjusted its website to require an additional mouse click to reach a complaint form, the overall number of complaints decreased. When it moved the resolution page closer to the home page, the number of complaints increased.

While an increase in complaints may sound alarming in a reality in which dispute resolution mechanisms are facing heavy backlogs, the efficiency of ODR mechanisms coupled with the potential of ODR to detect patterns of disputes 'upstream' may actually contribute to a long-term decrease in full-blown conflicts. It is reasonable to assume that the use of technology provides ODR with more opportunities to identify systemic contributors to conflict and systemic opportunities to reduce conflict. In this sense, it is appropriate to characterize ODR processes as being more involved in conflict management than are ADR systems that are focused on resolving individual cases. The growth in use of ODR can therefore be expected to shine more light on the variables that underlie the emergence of conflicts and lead to efforts to respond to causes of problems, thereby blurring conceptual, and not only physical, boundaries. The separation of dispute prevention and dispute resolution, which seemed natural in a world that did not stress the sharing of information, begins to feel unnatural in an environment that revolves around processing and communicating data. When SquareTrade shifted its focus from providing dispute resolution to consumers to providing insurance for consumers, it was not really changing industries but reducing risk and providing online expertise in dispute prevention.

While dispute resolution theory has traditionally been more focused on full-blown disputes and what is happening 'downstream', the capability to obtain information from persons or groups who do not yet perceive themselves as parties is a valuable by-product of enhanced communications capabilities and, hopefully, a contributor of much more effective dispute prevention strategies. Technology allows those who offer dispute resolution services on- and offline to systematically study patterns of disputes and the effectiveness of avenues for addressing them due to the ease of gathering data and analyzing it through multi-

137 P.W. Kahn, *The Cultural Study of Law*, University of Chicago Press, Chicago, 1990, p. 56.

138 R. Susskind, *Tomorrow's Lawyers: An Introduction to Your Future*, OUP, Oxford, 2013.

ple lenses on an ongoing basis. As stated above, while online entities offering ODR services such as eBay have had a head start in recognizing this potential, there is no reason why these benefits should not be extended to those offering ADR services face-to-face and indeed, more broadly, to courts, which have also been increasingly adopting technology into their case management and filing operations, even if not as a substitute to face-to-face proceedings.

The erosion of physical boundaries can also be expected to impact the role of confidentiality in dispute resolution, traditionally a central feature of ADR processes and a core element distinguishing ADR from the public court system. While contemporary dispute resolution theory has highlighted the significance of a physical space as being either public (and transparent) or private (and confidential), technology has blurred this distinction.

The introduction of ODR has challenged the common expectations regarding confidentiality in ADR. While parties may commit to maintaining such information secret, the difficulty of regulating party actions over such data has led at least some ODR services, such as SquareTrade when it handled eBay disputes, to forego such demands altogether.¹³⁹ Furthermore, as organizations collect data on complaints and disputes internally, such information can be expected to become increasingly integrated with other data gathered by such organizations, as well as shared among various organizations, rendering such disputing data less and less private.

With this risk, however, also comes an important benefit in terms of quality control over the process – its fairness and effectiveness. The fear that access to dispute information may impact the integrity and success of alternative processes can be compensated in the online setting through increased documentation and transparency regarding the content and enforceability of dispute resolution outcomes. Since communications are documented and parties (as well as others) can access them in real time as well as later on, this serves as a check on third-party intervention. Through in-depth study of particular cases as well as aggregate data on the outcomes delivered under specific third parties or ODR providers, improper conduct, poor performance and problematic process design can be uncovered.¹⁴⁰

In many instances, current use of ODR has been restricted to ‘simple’, non-emotional disputes where the reduction of privacy has been viewed as insignificant. Over time, the privacy barrier to the use of ODR will further decline. Already, social attitudes towards privacy are changing dramatically with the younger generation willing to disclose an abundance of personal, sensitive information online. While some have viewed these developments as a consequence of ignorance, it seems that the trend is a strong one, most likely irreversible, and its impact will inevitably be a dramatic change in our attitudes towards privacy.¹⁴¹

139 Rabinovich-Einy, 2006, pp. 274-276.

140 *Id.*, pp. 278-280.

141 D.M. Moscardelli & C. Liston-Heyes, ‘Teens Surfing the Net How Do They Learn to Protect Their Privacy?’, *Journal of Business and Economic Research*, Vol. 2, 2004, pp. 43, 51.

The introduction of technology has served to lower many of the barriers associated with dispute resolution taking place at a physical location – costs, access, time and hassle. The elimination of a physical ‘place’ in which dispute resolution efforts take place also impacts the degree to which confidentiality can be attained, a development which in the short term could be viewed as a drawback that restricts the applicability and scope of ODR, but in the long term will, in all likelihood, prove to be less significant than some may think.

The shift from a physical space to a virtual one, while lowering certain barriers, can raise others. Much has been written about the technological divide, and the impact of what until now has been textual communication in ODR on various types of disputants. As technological capabilities become richer and are increasingly offered through mobile technology as opposed to computers, we believe that these barriers will decrease in significance, making the impact of the lowering of physical barriers all the more dramatic.¹⁴² In no physical dispute resolution system could we imagine the massive figure of 60 million annual disputes faced by eBay being raised and addressed overwhelmingly in a satisfactory manner and for nominal cost.

4.2 *Conceptual Boundaries*

The field of dispute resolution has been premised on a separation between ADR and formal court-based processes. Thirty years ago, Owen Fiss’ ‘Against Settlement’ argued that ‘[t]o be against settlement is only to suggest that when the parties settle, society gets less than what appears, and for a price it does not know it is paying. Parties might settle while leaving justice undone’.¹⁴³ Justice, in Fiss’ view, required authoritative decisions based on principles that resulted from a public clash between parties with equal expertise and resources. If the role of law is to secure rights and protect liberties, to set standards and shape public and private behaviour, what happens in open court, even in cases seemingly involving two individuals, can be publicly important. What judges rule, he argued, have implications for both the individual litigants and for the rest of society. ADR might provide some relief from court dockets and, for the individuals directly involved, some measure of satisfaction. Peace, however, was not the same as justice, and Fiss urged that we opt for ‘justice rather than peace’.

Processes that migrate to cyberspace, however, often change as they discover and begin to employ new capabilities for communicating and processing information. As we have noted, the first attempts to establish online models of dispute resolution tended to mimic offline approaches, but subsequent efforts have begun to move ODR processes away from traditional models. In the move from offline to online, one can expect to see unintended consequences, in this case new expectations about courts, or even the emergence of new modes of cyberspace-

142 *The State of Broadband 2013, Universalizing Broadband, a Report by the Broadband Commission for Digital Development*, September 2013, available at <www.broadbandcommission.org/Documents/bb-annualreport2013.pdf>.

143 Fiss, 1983, pp. 1983-1984.

based rule-making processes that do not adhere to boundaries familiar to the ADR field.

For example, many assume that law emerges first with rules and, at some later time, institutions are set up to enforce or interpret the rules. The experience of online dispute resolution, even in its early stage, suggests a more complicated sequence, one in which the question 'where does law come from' has multiple answers. There are certainly instances in which the making of rules, the interpretation of rules and the application and enforcement of rules will occur in that order. In other instances, however, a starting point may be attempts to resolve problems that occur in the absence of rules, an activity that may later lead to the development of new rules or, at times, to new ways of thinking about methods for shaping behaviour and protecting rights. There are linkages between law and informal methods of social control, and, as Robert Ellickson has written, 'lawmakers who are unappreciative of the social conditions that foster informal cooperation are likely to create a world in which there is both more law and less order'.¹⁴⁴ Systems for social ordering, in other words, should be appropriate for the culture and community involved, and the Internet, with a still developing culture and community, is likely to be an ongoing challenge.

ODR may, in some cases, be a way of compensating for the vacuum or slow movement in rule making. It is, in addition to endeavouring to resolve disputes, being employed to do some of the tasks we expect to come from law. For example, trust is often built by enacting and publicizing enforceable standards, but it can also be achieved by providing assurances to parties in any relationship or transaction that they will have opportunities to resolve any problems that might arise. This is not to suggest that there is no need for authoritative, clear and even uniform rules, but only that some of the same ends can be achieved through a variety of means and new means can emerge as new information technologies are employed. Nor is it to say that all strategies to pursue some ends are equally effective. Indeed, the pressure for a rule-making authority in cyberspace may be heightened as a result of inadequacies of some of these substitute methods.

The late law professor Lon Fuller pointed out that 'just as a society may have rules imposed on it from above, so it may also reach out for rules by a different kind of inarticulate collective presence'.¹⁴⁵ Laws, rules and standards begin life via informational processes that identify problems, values and desired standards of behaviour. We have increasingly sophisticated sensors for generating feedback about problem areas, and we are acquiring increasingly sophisticated informational tools for building responses to problems that are identified. As noted earlier, it is hard to predict exactly what the path is from ODR to mechanisms that embody group expectations, but the short experience with ODR suggests that the old model in which rules came from courts and all other forms of dispute resolution are private, affecting the parties but not the public, was linked to information handling practices and information segregation practices that can be

144 R. Ellickson, *Order Without Law*, Harvard University Press, 1991, p. 286.

145 L. Fuller, 'Human Interaction and the Law', in R.P. Wolff (Ed.), *The Rule of Law*, Simon and Schuster, 1971.

managed differently in cyberspace. ODR, in this view, is not simply a shaper of preferences and a force for weakening law but a response to a need for a new vision of law, one that provides stability but also recognizes that change, in some instances accelerated change, is a constant.

It may be too early to predict what kinds of novel ordering, trust enhancing and dispute resolution institutions will emerge in cyberspace, but it is not too early to be confident that the need and demand for such institutions will continue to grow. It may be true, as one critic has written, that '[T]he possibilities for private legal ordering are not limitless',¹⁴⁶ but it is quite possible that information processing capabilities will expand the various models of private ordering and even, at times, allow public law models to emerge. Under such a scenario, rule making may emerge tentatively and gradually over time rather than with a single act of recognition. Rules may also emerge from shared spaces rather than sovereign spaces and from a concept of distributed authority¹⁴⁷ rather than a model of a supreme authority.

'Legal scholars', Paul Schiff Berman has written, 'have an unfortunate tendency to assume that legal norms, once established simply take effect and constitute a legal regime'.¹⁴⁸ We are in a period in which assumptions about the impact and effectiveness of state law are particularly perilous. Cyberspace has a different dynamic, one where events are driven both by data and by people. It is this new relationship between the human and the machine that is likely as well to shape the relationship between the state and virtual.

Donald Norman has written that:

Technology is not neutral. Each technology has properties – affordances – that make it easier to do some activities, harder to do others. The easier ones get done, the harder ones neglected. Each has constraints, preconditions, and side effects that impose requirements and changes on the things with which it interacts, be they other technology, people, or human society at large. Finally, each technology poses a mind-set, a way of thinking about it and the activities to which it is relevant, a mind-set that soon pervades those touched by it, often unwittingly, often unwillingly. The more successful and widespread the technology, the greater its impact upon the thought patterns of

146 J.L. Goldsmith, 'Against Cyberanarchy', *The University of Chicago Law Review*, Vol. 65, 1998, p. 1209.

147 B.S. Noveck, in a path-breaking article, writes that "This technology is enabling people to engage in complex, socially contextualized activities in ways not possible before. While it used to be that geography determined the boundaries of a group and the possibilities for collective action – I had to be near you to join you – now technology is revolutionizing our capacity for purposive collective action with geographically remote actors [...]. New social and visual technologies are emerging to facilitate the work of groups. What was an "information revolution" is becoming a social revolution. As a result, groups will increasingly be able to go beyond social capital building to law-making'. B.S. Noveck, 'A Democracy of Groups', *First Monday*, November 2005.

148 P.S. Berman, 'From International Law to Law and Globalization', *Columbia Journal of Transnational Law*, Vol. 43, 2005, p. 498.

those who use it, and consequently, the greater its impact upon all of society.¹⁴⁹

ODR is challenging not only the formal/informal and public/private court/non-court boundaries. It is also likely to reshape conceptual boundaries within ADR by redefining a traditionally fixed set of processes, each with its own commonly accepted features.

The introduction of technology into the design of the process in the form of the technological 'fourth party'¹⁵⁰ has both generated completely new types of processes unimaginable in the face-to-face era and separated some familiar dispute resolution processes from qualities and traits previously considered significant, if not essential, to their design and operation. A clear example of a new process is the emergence of automated and technology-assisted negotiation/mediation approaches, which include problem identification processes (eBay), mechanisms for matching problems and solutions (SquareTrade), automated negotiation support systems (SmartSettle) and blind bidding tools (CyberSettle). These processes escape previously accepted clear-cut distinctions between direct negotiation and third-party dispute resolution, giving rise to another *sui generis* category in which the 'fourth party' displaces the third party. These applications have been employed mainly in relatively simple disputes but can be expected to evolve and play a useful role and be a force for change in the managing of highly complex disputes.

In other cases, ODR processes are offered under the same title as their offline equivalents but may in fact possess very different qualities. The Wikipedia dispute resolution system offers several examples with a somewhat non-traditional arbitration process in terms of mandate and procedures for reaching a decision,¹⁵¹ and an open, informal mediation process that also challenges the widespread current notion that mediation should and needs to be offered confidentially.¹⁵² Indeed, as this last point suggests, there is another conceptual boundary, perhaps several boundaries, that have been blurred by the shift to digital technology. Not only have dispute resolution processes changed, but our perceptions of what constitute formal versus informal or private as opposed to public dispute resolution have been challenged by developments in the ODR field. Similarly, in terms of third-party neutrality, another trait of contemporary dispute resolution processes, while we may be sacrificing the original means for ensuring independence (mainly through separation and distance), we have opened the door for a different kind of quality control mechanism, operating on both the individual and aggregate levels. We see how physical and conceptual barriers are intertwined

149 D.A. Norman, *Things That Make Us Smart*, Addison-Wesley, 1993, p. 243.

150 Katsh & Rifkin, 2001, pp. 93-95.

151 D. Hoffman & S. Mehra, 'Wikitruth through Wikiorde', *Emory Law Journal*, Vol. 59, 2010, pp. 174-175.

152 Of course there are exceptions to this rule offline as well, but they are rare. Mediation is defined and understood to be a confidential process and indeed one in which confidentiality constitutes an essential feature. See, e.g., Section 8 of the Uniform Mediation Act, available at <www.mediate.com/articles/umafinalstyled.cfm>.

with the shift from a physical to virtual space being complemented by a change in social values and preferences, and resulting in a dramatically different understanding of the workings and essential qualities of dispute resolution processes.

As we can see, developments in the ODR field have undermined what have seemed like firm distinctions between process types, dispute resolution system goals and third-party activities and responsibilities. The realization that dispute resolution processes can be structured differently than they have been, not only because they must be structured differently when delivered online owing to technological constraints, but because it may actually prove to be a better way to design the process in a given context, has blurred conceptual boundaries on several fronts: (1) accepted distinctions between ADR process types and the set of characteristics and assumptions each of these processes has been associated with; (2) common distinctions between formal and informal, confidential and public, flexible and structured are revisited as new hybrid combinations emerge and (3) the line between the different goals of the system – dispute resolution versus dispute prevention – are increasingly being blurred with intervention taking place very early on, often without being prompted by a complaint.

4.3 *Psychological Boundaries*

The above-described developments have implications for psychological boundaries as well as conceptual ones. Technology, by assisting in the automatic detection of problems, obviates the need to passively wait for complaints to arrive and allows proactive remedying of a problem, even before a potential complainant has been made aware of its existence. In effect, technology can obviate the three-stage psychological process of maturation of complaints described above. This is evidenced in Wikipedia's use of bots that locate instances of infringement of its policies by editors who abuse content and harm the accuracy and reputation of the content on its site¹⁵³ and in review sites use of algorithms to detect fraudulent content in hotel or restaurant ratings.¹⁵⁴ In these cases the 'naming, blaming, claiming' process becomes a single stage, often automatic (or at least technology-assisted) 'detecting' process.

Cognitive biases have not vanished, but ODR tools have generated new ways to overcome them, such as automated negotiation processes that overcome disputants' strategic conduct (e.g. Cybersettle's blind bidding process), uncover assumptions that have generated suspicion and animosity (e.g. eBay's 'Item not as described' process) or change the information relevant to negotiations (e.g. Lex Machina).¹⁵⁵ Where heuristics have prevented parties from reaching a Pareto-optimal resolution, the all-knowing software may offer parties to improve their outcome at no cost to either party (i.e. Smartsettle's optimizing feature).

153 Hoffman & Mehra, 2010, pp. 207-208.

154 K. Johnston, 'Review Websites Try to Thwart False Customer Ratings', *Boston Globe*, 25 September 2013.

155 <www.lexmachina.com>.

Needless to say, technology is not 'neutral'.¹⁵⁶ It was designed by people who have their own set of biases, assumptions and values, and their impact needs to be uncovered and analyzed. But the capability that software affords for flexibility when needed or added structure when appropriate can help uncover the biases in the design and guide parties through a thoughtful process, uncovering their interests and questioning their biases and assumptions. Where biases cannot be prevented or uncovered on an individual basis, the documentation afforded through ODR allows problematic outcome patterns to be detected, exposing potential biases in the design or in specific third parties' decision-making.

Given the dearth of academic research on the implications of digital technology for procedural justice theory, it is difficult to fully analyze what we can expect in this domain.¹⁵⁷ However, the few experiments that have attempted to measure procedural justice-related factors among ODR users have found that disputants continue to expect dispute resolution processes to fulfil criteria associated with procedural justice – to allow for voice, to treat them with respect, to be neutral. Interestingly, what this research seems to suggest is that at least for facilitative processes (as opposed to decision-based ones), disputants adjust their expectations regarding the fulfilment of such criteria when delivered through automated systems. In other words, when such disputants know that a facilitative process is performed by software, as opposed to a human, they still expect the process to comport with procedural justice components, but have different expectations as to what would fulfil such criteria.¹⁵⁸ eBay has found that its automated negotiation processes have contributed to enhanced trust in the site, resulting in increased activity on the site, which seems to support the notion that users adjust their expectation of procedural justice to the medium through which dispute resolution services are offered.¹⁵⁹

4.4 Professional Boundaries

Finally, professional boundaries, as in other domains, are facing significant challenges as ODR systems have often been developed by people from outside the ADR and legal milieu, involving entrepreneurs and computer scientists as well as lay users of websites such as Wikipedia. In addition, the massive use of inexpensive automated systems that obviate the need for a human third party and do not require representation by lawyers has further limited the professional turf of ADR professionals and lawyers.

156 H. Nissenbaum, 'Values in Technical Design', in *Encyclopedia of Science, Technology and Ethics*, 2005, pp. 66-70.

157 A. Sela, 'Can a Computer Be Fair? Disputants' Experience of Procedural Justice in Automated and Facilitated Online Dispute Resolution', unpublished manuscript (on file with author), 2011; L. Klaming, 'Quality of ODR Procedures', in M. Gramatikov (Ed.), *Costs and Quality of Online Dispute Resolution*, Maklu Publishers, 2012, pp. 137-145.

158 Sela, 2011.

159 C. Rule, 'Quantifying the Economic Benefits of Effective Redress: Large E-Commerce Data Sets and the Cost Benefit Case for Investing in Dispute Resolution', *University of Arkansas Law Review*, Vol. 34, 2012.

Professionals have often been slow to embrace new technologies, and where they have mastered such technologies, they have tended to overlook their disruptive impact, instead embracing their short-term promise for enhanced efficiency. In the longer term, however, reduced control over legal information and increased access to online information about procedural and substantive aspects relating to dispute resolution are threatening professional turf. Professionals, lawyers and ADR experts among them, are required to demonstrate their added value in an age in which individuals may rely on information, tools and systems available online to address the problems they face.

In the short term, the emergence of ODR has offered lawyers and others in the field of ADR yet another realm in which they can demonstrate their expertise. For potential users, the lowering of physical boundaries in ODR has allowed access to a larger pool of third parties, bypassing distance and obviating the need to meet in person. In the longer term, however, as people's preferences and values evolve, these developments will inevitably be disruptive and undermine the professionalization of ADR. This can be expected to happen for two reasons. First, the field of dispute resolution will have to open up to additional professions that did not traditionally have voice in the design and delivery of dispute resolution (*e.g.* computer scientists) as well as laypeople, who will move from the position of passive recipients of dispute resolution services to having a voice and input in the design and evaluation of such processes. Second, these developments can be expected to moderate the legal professions' hold over the ADR field. The volunteer phenomenon has not disappeared in ODR as lawyers and other professionals are substituted for with lay crowdsourcing.

5. Conclusion: Shifting Boundaries in the Shadow of the Network

The introduction of digital technology and the rise of ODR are undermining boundaries that support the different forms of dispute resolution. This development reflects the deeper changes that have rendered such boundaries less necessary. Automation and the efficiencies of digitization have relaxed, and in some cases obliterated, the institutional and human constraints that have made dispute selection necessary. The shorter time frames, lower costs and efficiencies associated with occupying a digital space have increased both the capacity of dispute resolution providers to handle disputes and of humans to render decisions or help resolve disputes. In other cases, dispute volumes are so high that automated processes have handled with great success numbers of cases that in the past were unfathomable.

Similarly, the stark opposition between formal and informal processes on the one hand and the fixed structures of the various informal processes offered on the other have been dimmed because these structures were no longer necessary to generate legitimacy, nor reflective of existing preferences and values. Technology has not only made it necessary to design ADR processes that were more 'open' and less 'private', but such design, over time, also seemed to (1) better reflect and also actively shape the change in societal views towards privacy and the goals of

private dispute resolution (with dispute prevention and norm generation as equally, if not more significant than resolution of individual disputes) and (2) offer an alternative basis for institutional legitimacy.

As the experience with ODR systems and tools has shown us, digital technology has allowed us to build systems that can handle what was previously impossible in terms of quantities of disputes. This change in capacity has meant that problems, grievances, disputes and conflicts that were not dealt with in the past could now surface and receive redress. Furthermore, such redress would be accessible and efficient – it could be provided from the convenience of one's own home, 24 hours a day 7 days a week, without a need for legal counsel or advice, through easy-to-use, largely automated or software-facilitated processes.

Disputants using such systems would not only be able to access them more easily, but as the brief history of ODR shows us, but would also have a more meaningful opportunity than in the past to have input in such processes' design and to provide feedback on satisfaction, fairness and accountability of these mechanisms. Finally, the automatic, seamless documentation that initially seemed to be a major drawback of ODR has over time come to be seen as an asset, allowing ODR providers and businesses to study both positive and problematic patterns and improve the performance of the dispute resolution system and that of third parties, as well as uncover sources of disputes and propose or implement elements for preventing them from recurring in the future. In this way, new technologies have the potential to generate dispute resolution systems that better deliver the original promise of ADR as portrayed in the previous century: access to justice, creative process design, tailored processes that meet party needs and preferences, and expertise and efficiency.

This is not to say that digital technology is a panacea for the ills of traditional dispute resolution or that the future evolution of ODR will be friction-free; behind software programmes are individuals, with values and preferences, and whose choices are grounded in their own worldview and reflect societal power structures and individual biases. Alongside efficiency, dispute resolution mechanisms will have to ensure fairness if they are to sustain their legitimacy. Whether they succeed remains to be seen. What seems clear is that the means for ensuring fairness and generating trust follow a new logic and challenge some of our deepest preconceptions and understandings about dispute resolution. The old model had assumed that dispute resolution operated 'in the shadow of the law'¹⁶⁰ in that the law strongly influenced the context in which dispute resolution occurred. Our new boundaries reflect the network's reach and our thoughts about what is possible, desirable and even just, are more oriented around the technological context than the legal context, around data as well as rules, and around 'a new boundary made up of the screens and passwords' and everything that they link to.¹⁶¹

160 Mnookin & Kornhauser, 1979; R. Cooter, S. Marks & R. Mnookin, 'Bargaining in the Shadow of the Law', *Journal of Legal Studies*, Vol. 11, 1982.

161 D.R. Johnson & D. Post, 'The Rise of Law on the Global Network', in B. Kahin & C. Nesson (Ed.), *Borders in Cyberspace*, MIT Press, 1997, p. 3.