3 Lessons from Online Dispute Resolution for Dispute Systems Design

Orna Rabinovich-Einy and Ethan Katsh

1 Introduction

This chapter addresses a disconnect between two bodies of literature in the ADR field – that relating to "dispute systems design" (DSD) and that relating to "online dispute resolution" (ODR). We show that the need to integrate technology into the ADR field has been understood only in a narrow area and in a limited fashion. To date, technology in dispute resolution has been relegated to the ODR field, viewing it as a niche area relevant mostly to where disputes between parties arose online or are substantively connected to technology. As we will show, the reach of new technologies is far more pervasive and holds a promise for transforming in a very deep sense some of the ADR's field's most deep-rooted assumptions in the area of DSD.

While our main focus is on the lessons of ODR for the DSD field, we believe that the merging of ODR and DSD provides important insights for both the DSD field and the ODR field. In terms of DSD, technology has been challenging some of the field's most basic assumptions, but has also generated new means for addressing and preventing disputes systematically. For ODR, the DSD perspective highlights the need to think of dispute resolution in a systematic way and emphasize the prevention of disputes, rather than focusing on tools for addressing individual disputes on an ad hoc basis.

In the sections that follow, we describe the rise of both ADR and DSD in recent decades, as well as the impact technology has had and can be expected to further have on the evolution of DSD in the future.

2 Lessons of ODR: DSD Meets Technology

2.1 The Rise of ODR

In the late 1990s, with the proliferation of internet communications, it became apparent that the online environment was fast becoming an arena that was rich with disputes but deficient in avenues for effectively addressing them. The unique features of online commu-

nication made traditional, face-to-face dispute resolution processes irrelevant. Since communications could be conducted over distances (oftentimes crossing legal jurisdictions) and identities could be easily masked, familiar means for engendering trust and ensuring the effectiveness of dispute resolution mechanisms were typically missing.[1] Even where some of these difficulties could be mitigated, courts and traditional ADR processes typically remained inaccessible due to the high costs associated with face-to-face processes that required long distance travel and legal representation for dealing with what were often small scale conflicts (in monetary terms).

The realization that the very features that have contributed to the emergence of disputes online – mainly the communication over geographical, cultural and linguistic differences – have also served to make traditional dispute resolution avenues ineffective, has given rise to the development of what has been termed "online dispute resolution", or ODR. Originally, the term referred to processes for dispute resolution that relied on ICT or were being offered through the internet for addressing conflicts that arose online (namely in the e-commerce setting or on online social forums) or were related to the digital environment (such as copyright abuse). Over time, use of such processes has expanded, and these mechanisms are increasingly being offered for the resolution of offline disputes (although interestingly some of the very early ideas for using ODR targeted offline conflicts, offering online processes for addressing family disputes).

The contemporary ODR landscape can be divided into two principal domains – *tools* and *systems*. The first area has involved the development of specific dispute resolution applications that can be used to resolve both online and offline disputes. The future of ODR is assumed by many to lie in an expanding array of tools that will open up new options for third parties.[2] Perceived in this way, ODR is not in itself a distinct field but more like a support system for mediators and arbitrators addressing individual disputes. As mediators have become more comfortable generally in the use of technology, they have increasingly been looking for software applications that could perform a discrete function and could be plugged into their practice in some way.[3] From such a perspective, the future of ODR

1 O. Rabinovich-Einy, "Technology's Impact: The Quest for a New Paradigm for Accountability in Mediation", *Harv. Neg. L. Rev*. (2006) Vol. 11, pp. 257-258.

2 See E. Katsh & J. Rifkin, *Online Dispute Resolution: Resolving Conflicts in Cyberspace* 2001, pp. 90-116; D. Larson, "Technology Mediated Dispute Resolution", *U. of Toledo L. Rev*. (2006) Vol. 38, pp. 215-217; A.R. Lodder & J. Zeleznikow, "Developing an Online Dispute Resolution Environment: Dialogue Tools and Negotiation Support Systems in a Three-Step Model", *Harv. Negot. L. Rev*. (2005) Vol. 10, pp. 287-337.

3 For example, the use of software for an online brainstorming process (see E. Katsh & L. Wing, "Ten Years of Online Dispute Resolution (ODR): Looking at the Past and Constructing the Future", *Univ. of Toledo L.Rev*. (2006) Vol. 38, pp. 19-45; see also Debatagraph's visualization tools used for exploring various aspects of a problem and potential solutions (see <http://debategraph.org/>, last accessed 9 May 2011).

would seem to lie in an ongoing evolution of more and more powerful software that could be employed in more and more complicated contexts.

One example of ODR tools is the development of processes for "automated negotiation".[4] In automated negotiation, a human third party such as a mediator or arbitrator is substituted with software-based decision making. Prominent examples of such processes can be found in SquareTrade's[5] or ECODIR's[6] preliminary stage of dispute resolution, as well as in Cybersettle's double-blind bidding process.[7] Another tool consists of "negotiation support systems" – software that assists negotiating parties in determining their own interests as well as reaching a mutually accepted resolution that maximizes joint gain for all parties.[8] Finally, a variety of ODR providers including The Mediation Room,[9] Juripax[10] and Benoam[11] have been for quite some time now operating online platforms that allow mediators and arbitrators to exchange documents and communicate with parties without having to meet face-to-face. These ODR tools are now being used to facilitate the mediation process even when the disputants are in the same room and the conflicts emerged in the offline setting. While the appeal of ODR for online disputes 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.[12] 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.[13] These 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.

ODR *systems* include ODR tools (such as those described above) used in a coordinated way within a closed setting by a limited (but potentially very large) number of users who

4 See E. Katsh & O. Rabinovich-Einy, "Technology and the Future of Dispute Systems Design", forthcoming *Harv. Neg. L. Rev*. 2012.
5 Rabinovich-Einy (2006), p. 258.
6 <www.ecodir.org/odrp/details.htm>, last accessed on 7 May 2011.
7 <www.cybersettle.com/pub/home/about.aspx>, last accessed on 7 May 2011.
8 <www.smartsettle.com/resources/275-negotiation-support-system-challenges-and-opportunities>, last accessed on 7 May 2011.
9 <www.themediationroom1.com/>, last accessed on 7 May 2011.
10 <www.juripax.com/>, last accessed on 7 May 2011.
11 <www.benoam.co.il/>, last accessed on 7 May 2011.
12 O, Rabinovich-Einy, "Balancing the Scales: The Ford-Firestone Case, The Internet, and the Future Dispute Resolution Landscape", *Yale Journal of Law & Technology* (2006) Vol. 6, pp. 29-30.
13 E.M. Thiessen & J.P. McMahon, "Beyond Win-Win in Cyberspace", *Ohio St. J. on Disp. Resol* (2000) Vol. 15, pp. 643-667.

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 and, in the case of systems, for online communities. The paradigmatic example of an ODR system is the eBay dispute resolution mechanism, which is well-known for its high usage rate (now handling well over sixty million disputes annually) and impressive success rates (over 80% of the disputes are satisfactorily resolved through automated mechanisms without a need for any human involvement).[14] 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 uncover common sources of problems and to structure information and services on its site so that these problems do not recur.[15]

Another elaborate ODR system that has emerged in another online context, is the one established on Wikipedia.[16] 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). Alongside its dispute resolution efforts, Wikipedia is 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. What both eBay and Wikipedia understood early on was that by offering effective dispute resolution mechanisms that were integrated with the site's (or community's) principal mission, they not only satisfactorily address individual disputes, but are also able to prevent problems thereby enhancing trust in the site and improving its content and performance. In this mission, technology was not only a byproduct of such sites' online operations, but proved to be an invaluable tool in detecting problematic patterns and instituting effective, often automated, solutions.

As can be seen from the eBay and Wikipedia examples, companies that operate exclusively online have enjoyed a head start in understanding how influential a communications and information processing capability can be in shaping the nature and quantity of disputes that occur and the options for dispute resolution that will be needed. They have demonstrated the value of not treating disputes as isolated events and of treating the information

14 Katsh & Rabinovich-Einy (2012).
15 *Id.*
16 <http://en.wikipedia.org/wiki/Wikipedia:Dispute_resolution>, last accessed on 7 May 2011.

generated by a functioning dispute system as something that needs to be attended to in order to understand how disputes surface and to identify approaches in how they might be resolved.

The lessons learned by the all-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. As all institutions adopt communication over the network as a significant part of their operating models, and as online interactions replace many traditional offline interactions, institutions will confront many of the forces, capabilities and opportunities that the all-online entities have already identified. Indeed, to some extent this process has already begun with some offline organizations and companies starting to integrate ODR systems. One example is the adoption of an online arbitration system for the resolution of fender-bender subrogation claims for property damages in the insurance industry in Israel.[17] An entire industry has shifted from litigating these claims to addressing them systematically through an exclusively online system. Beyond the effective and satisfactory resolution of individual disputes, the online system has led to the refinement of the rules governing such claims, thereby enhancing clarity and preventing similar problems from recurring.[18]

Another example is the current experimentation with ODR for addressing Freedom of Information Act (FOIA) disputes in the United States.[19] While up until now each government agency has addressed FOIA claims separately, the introduction of a comprehensive ODR system to deal with FOIA-related disputes promises to create links across agencies thereby enhancing efficiency and satisfaction. Through these links, the ODR system would not only be able to more effectively address systemic patterns of problems that arise repeatedly in these contexts, but would also be able to operate on a preventative level.[20]

As we can see from the brief description of the evolution of the ODR field, the line between on- and offline activities has been constantly shifting, with activities that were considered in the past to be the domain of face-to-face interaction becoming an inherent part of online communication. Parallel to these developments, the distinct characteristics of online communications have been blurred, with digital avenues becoming a primary means for communication between close friends who are based near one another as well as a means for connecting with distant strangers. These changes have meant that the domain of ODR

17 O. Rabinovich-Einy & R. Tsur, "The Case for Greater Formality in ADR: Drawing on the Lessons of Benoam's Private Arbitration System", *Vermont L. Rev.* (2010) Vol. 34, p. 542; O. Rabinovich-Einy & R. Tsur, "Unclogging the Collision Course: The Evolution of Benoam, an Online Private Court", *ACResolution* 2010, p. 8.

18 See generally, Rabinovich-Einy & Tsur "The Case of Greater Formality", 2010.

19 Katsh & Rabinovich-Einy (2012).

20 *Id.*

has also expanded, relaxing many of the assumptions about what is and is not appropriate for online resolution. In the following section, we explore another development in the ADR field that emerged around the same time as internet communications began to spread – the growth of DSD. Despite both developments being grounded in the broader field of ADR and other connections that exist between them, they have thus far occupied distinct spheres, with occasional references to one another, but no systematic effort to think about the deeper connections that exist between them.

2.2 The Emergence of DSD

In the late 1980s, Ury, Brett & Goldberg published a book entitled *Getting Disputes Resolved: Designing Systems to Cut the Costs of Conflict*.[21] This book would later be recognized as signaling the birth of the field of DSD. The authors' principal insight was that patterns of disputes can be found in closed settings and, therefore, by institutionalizing avenues for addressing disputes, conflict will be handled more effectively and satisfactorily than through ex-post measures.[22] From the very beginning, it was clear that the emerging field marked a shift from an individual perspective (that was typical of ADR up to that point) to a structural one:

Ury *et al.*'s research was based on empirical data concerning wildcat strikes in the mining industry but they also hoped to provide new perspectives on both dispute resolution and prevention systems in organizations and institutions. They were intrigued by the fact that different mines suffered from different kinds of strikes. The explanation lay in processes and levels of communication between union and management. Communication that focused on interests of the parties and that took place continuously was believed to help prevent strikes. This realization led Ury *et al.* to

> [d]istinguish three major ways of resolving disputes: to reconcile the disputants' underlying interests, to determine who is right, and to determine who has more power. Problem solving negotiation exemplifies the interests approach; going to court, the rights approach; strikes and wars, the power approach. We argue that, in general, an interests approach is less costly and more rewarding than a rights approach, which in turn is less costly and more rewarding than a power approach. The goal, then, is to design a system that provides interests-based procedures for disputants to use whenever possible and low-cost rights proce-

21 W.B. Ury *et al.*, *Getting Disputes Resolved: Designing Systems to Cut the Costs of Conflict*, 1988.
22 See *id.*, pp. xii-xiii.

> dures (such as advisory arbitration) or low-cost power procedures (such as voting) as backups.[23]

In addition, Ury *et al.* offered a four-stage communications-intensive design process comprised of diagnosis, design, implementation, and finally exit, evaluation and diffusion.[24]

Several years later, Costantino & Merchant published the second major building block in the evolution of the DSD field.[25] The Costantino & Merchant book focused attention on the value of identifying patterns of disputes. Where patterns can be identified, the dispute resolution system can move beyond the resolution of individual disputes and enhance prevention on a system-wide basis.[26] In addition, Costantino & Merchant highlighted the benefits of including in the design process those who would be affected by the processes developed.[27] Such practices are clearly relevant to dispute resolution systems which employ the new capabilities embedded in digital technology.[28]

DSD can be viewed as an activity of setting, or resetting, professional, physical, and conceptual boundaries. These different kinds of boundaries can all be linked to and affected by processes of communication. In terms of professional boundaries, a new profession of dispute systems designer emerged. Designers were often trained in ADR or/and organizational development and possessed expertise in conducting the organizational dispute analysis that would underlie the dispute systems design 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. In this environment, internal dispute handlers, such as ombudsmen, became more widely used to oversee these newly established systems.

An important goal of DSD was the establishment of a physical boundary that could separate the dispute resolution system from the other parts of the organization. The rationale was that a secure space was needed for employees to voice concerns and complaints. Confidentiality needed to be provided to those using the system in order to build trust in the system

23 See *id.*, p. XV.
24 See *id.*, pp. 65-83.
25 See C. Costantino & C. Merchant, *Designing Conflict Management Systems: A Guide to Creating Productive and Healthy Organizations*, 1996.
26 See *id.*, p. 168.
27 See *id.*, p. 49.
28 See *infra* paragraph 3.

and in the neutrals who were often employees of the organization.[29] This is, of course, important but confidentiality also led to very little documentation being preserved about the operation of the dispute resolution process.[30]

Lastly, DSD has had an impact on conceptual boundaries relating to dispute resolution typologies. The establishment of distinctions among ADR processes was necessary to distinguish internal conflict management systems from the litigation process, something that was important in justifying their establishment and use. Dispute resolution literature tended to view the freedom and flexibility to select one's own dispute resolution process as a principal advantage of ADR. The framework offered by UB&G emphasized the advantages of internal systems and the value of deliberate design. Dispute systems designers have often opted for one or more processes, including mediation, arbitration, and counseling. Clear lines were drawn between interest and rights-based processes and within each category, processes such as mediation tended to have set, predetermined characteristics.

Since the publication of the Costantino & Merchant book, the DSD field has generated a substantial literature on the topic and conflict management systems have been established in many different organizations and institutions.[31] What originally was applied to the workplace setting has expanded and is being employed in additional areas, such as courts,[32] compensation facilities and funds,[33] constitution-drafting,[34] and the international sphere.[35]

29 See H. Gadlin & E.W. Pino, "Neutrality: A Guide for the Organizational Ombudsperson", *Neg. J.* (1997) Vol. 13, pp. 17-35; M.P. Rowe, "The Corporate Ombudsman: An Overview and Analysis", *Neg. J.* (1987) Vol. 3, pp. 128-129.

30 See H. Gadlin, "The Ombudsman: What's in a Name?", *Neg. J.* (2000) Vol. 16, p. 41.

31 See for example J.P. Conbere, "Theory Building for Conflict Management System Design", *Conflict Res. Q.* (2001) Vol. 19, pp. 215-236; C.A. Costantino, "Using Interest-Based Techniques to Design Conflict Management Systems", *Neg. J.* (1996) Vol. 12, p. 207-214; D.M. Kolb & S.S. Silbey, "Enhancing the Capacity of Organizations to Deal with Disputes", *Neg. J.* (1990) Vol. 6, pp. 297-304; M.P. Rowe, "The Ombudsman's Role in a Dispute Resolution System", *Neg. J.* (1991) Vol. 7, pp. 353-360. A prominent example is Lipsky, Seeber & Fincher's comprehensive book on conflict management systems, published in 2003 (See D.B. Lipsky *et al., Emerging Systems for Managing Workplace Conflict: Lessons from American Corporations for Managers and Dispute Resolution Professionals*, 2003).

32 See C. Menkel-Meadow, "Are There Systemic Issues in Dispute System Design? And What We Should [Not] Do About It: Lessons from International and Domestic Fronts", *Harv. Neg. L. Rev.* (2009) Vol. 14, p. 201; O. Rabinovich-Einy, "Beyond Efficiency: The Transformation of Courts through Technology", *UCLA J. of L. & Tech.* (2008) Vol. 12, pp. 1-45.

33 See R.M. Ackerman, "The September 11th Victim Compensation Fund: An Effective Administrative Response to a National Tragedy", *Harv. Negot. L. Rev.* (2005) Vol. 10, pp. 135-229; E. Eiran, "Politics and the 2005 Gaza and North West Bank Compensation and Assistance Facility", 14 *Harv. Negot. L. Rev.* (2009) Vol. 14, pp. 101-121.

34 See Menkel-Meadow (2009), p. 219.

35 See A.K. Schneider, "The Intersection of Dispute Systems Design and Transitional Justice", *Harv. Neg. L. Rev.* (2009) Vol. 14, pp. 289-315.

In all these contexts, it has been recognized that the heart of both dispute resolution and dispute prevention lies in communication between parties as part of a decision-making process. Rather than waiting for disputes to occur, dialogues conducted by potential parties in organizational settings can lead to the design of processes for facilitating information exchange and information processing in other arenas and between different types of stakeholders. Such efforts also had the effect of dimming the distinction between formal and informal dispute resolution,[36] and between dispute resolution and norm generation.[37]

As part of the growth of the field, the Ury *et al.* and Costantino & Merchant models have been revisited in an attempt to address "second generation" DSD issues.[38] Yet, the impact and potential of digital technology on the traditional framework of DSD has not been rigorously studied.[39] Where technology has been discussed, it has been assumed that the role of technology in DSD would be to move the field in the same direction it has been heading rather than being a force that represents a change in direction. Technology however, is often "disruptive", in that it may require a reorienting of accepted practices at the same time that it brings new ways and new ideas about how to achieve goals.[40] It is our view that the introduction of digital technology will generate a highly significant and perhaps radical shift, under which DSD is transformed from a boundary-setting activity to one in which boundaries are constantly being challenged, becoming more diffuse and flexible. One example is the way in which technology has allowed the breaking of traditional distinctions that have long existed within ADR between interest- and rights-based processes, as well as the blurring of boundaries within each process type. This involves generating new types of processes and variations within each familiar category of processes, each with its own

36 For the application of DSD principles to courts: See Menkel-Meadow (2009), p. 201; O. Rabinovich-Einy (2008).

37 With the application of DSD principles in consensus-building processes, they were often being used to generate new norms and shared understandings as opposed to addressing a concrete conflict in accordance with pre-existing norms: see C. Menkel-Meadow, "Peace and Justice: Notes on the Evolution and Purposes of Legal Processes", *Geo. L. J.* (2006) Vol. 94, pp. 572-576.

38 See C.A. Costantino, "Second Generation Organizational Conflict Management Systems Design: A Practitioner's Perspective on Emerging Issues", *Harv. Neg. L. Rev.* (2009) Vol. 14, pp. 81-100; F.E. McGovern, "The Second Generation of Dispute System Design: Recurring Problems and Potential Solutions", *Ohio St. J. on Disp. Resol.* (2008) Vol. 24, pp. 53-79.

39 Notable exceptions are the Bordone article (R.C. Bordone, "Electronic Online Dispute Resolution: A Systems Approach Potential, Problems, and a Proposal", *Harv. Neg. L. Rev.* (1998) Vol. 3, pp. 175-211) and the Lipsky *et al.* book (Lipsky *et al.* (2003), pp. 329-331), which refers to the emergence of ODR. The following are some additional exceptions where ODR is mentioned: See L.B. Bingham *et al.*, "Dispute System Design and Justice in Employment Dispute Resolution: Mediation at the Workplace", *Harv. Neg. L. Rev.* (2009) Vol. 14, pp. 14, 17; See Menkel-Meadow (2009), p. 208; S. Smith & J. Martinez, "An Analytic Framework for Dispute Systems Design", *Harv. Neg. L. Rev.* (2009) Vol. 14, pp. 145, 150, 154-156; Eiran (2009), p. 121. More commonly, however, the DSD literature ignores technology.

40 E. Katsh, *The Electronic Media and the Transformation of Law* 1989, pp. 3-5; R. Susskind, *The End of Lawyers* 2008, pp. 93-100.

qualities and traits.[41] We expand on the blurring of boundaries in DSD in these and other realms in the following section.

2.3 The Impact of New Technologies on DSD: The Blurring of Traditional Boundaries

2.3.1 Professional Boundaries

The traditional DSD paradigm laid the foundation for both the creation of a new profession of dispute systems designers and a new arena for the delivery of dispute resolution services by professional ombudsmen internally within organizations. The proliferation of digital technologies seems to challenge these professional categories and the boundaries they created on several levels. For one, our understanding of dispute systems designer capabilities, qualities and training can be expected to undergo significant change.[42] While traditionally, both designers and ombudsmen were trained in such areas as organizational development and dispute resolution, the digital environment requires familiarity with the new opportunities and dangers that are associated with digital communication and the use of digital tools for locating, addressing and preventing conflicts. As digital technology becomes an inherent part of the way people interact and organizations function, it will have to be incorporated into the way people communicate about their differences. We can expect a similar development to occur in terms of the spread of ODR systems (either as standalone systems or as an addition to face-to-face ones), requiring designers to better understand the qualities of these technologies and the new opportunities they open up (as well as the barriers and costs they entail).

As part of these changes, dispute systems designers will need to learn to cooperate with technical experts in the development of ODR systems. Working together does not translate into a mere aggregation of perspectives, but may very well result in a product that is altogether different, as a result of the commingling of the very different viewpoints, work processes and orientations each of the disciplines has.

An important new perspective that is bound to deeply impact the DSD field is that of computer scientists who will inevitably be drawn to ODR. Online dispute resolution and DSD have attracted the interest of computer scientists who have recognized that ODR is

41 See *infra* paragraph 2.3.3.

42 See Costantino (2009), pp. 96-97 (raising the question what knowledge, skills and competencies dispute designers should possess).

software-based and, like all forms of dispute resolution, is focused around the management of communication and information. There are many sub-fields of computer science, such as artificial intelligence, process modeling and software engineering, that are likely to find that ODR and DSD provide opportunities for research and practical contributions. As processes that were conducted entirely face to face in the past are joined by processes that are software-based, modes of analysis and presentation are likely to change. Verbal and textual applications, for example, are likely to be joined by visual and graphical resources, by tools for reflection and even by games that provide behavioral insights. In an early example of some of this, the University of Massachusetts Departments of Computer Science and Legal Studies, along with a federal agency, the National Mediation Board, have been working together for seven years with an initial focus on the use of technology in labor disputes.[43] Computer scientists' input in the design phase proved crucial. Their role extended beyond that of mere executioners, uncovering assumptions underlying the ADR-trained designers' choice of goals and means, and, consequently, in refining the goals of these new tools as well as playing a key role in shaping their form.

In addition, user input also has the potential to transform the way in which DSD is understood and practiced. Digital technology can make participation by stakeholders much more meaningful than it has traditionally been by allowing a wide array of voices to be heard. This is due to the capabilities for synthesizing input from a large number of participants,[44] the ability to offer input at convenient times and from afar and, in some cases, the opportunity for anonymous input that comes with digital communication in the post web 2.0 era.[45] Furthermore, users can become actual designers of the dispute resolution systems on which they rely. Wikipedia's informal "mediation cabal" dispute resolution avenue is one example of a bottom up dispute resolution mechanism that exists alongside parallel processes offered by the site.[46] This is another clear manifestation of the threats technology poses for professional boundaries, as individual users, with no background in DSD (nor ADR for that matter) can establish dispute resolution processes and systems. We can expect a layperson's design to differ from that of a professional dispute systems designer, resulting in an end-product that resembles familiar processes, but also departs from some of the basic prevailing assumptions among ADR professionals. It is perhaps not surprising therefore that the mediation cabal process does not offer confidentiality to disputants and all mediation records are widely available online, much more in line with

43 Katsh & Wing (2006), pp. 33-35.

44 See B.S. Noveck, *Wiki Government: How Technology Can Make Government Better, Democracy Stronger, and Citizens More Powerful*, 2009, pp. 14, 18, 181 (for a more general discussion of the phenomenon of "crowd sourcing").

45 See Katsh & Wing (2006), pp. 40-41.

46 <http://en.wikipedia.org/wiki/Wikipedia%3AResolving_disputes>, last accessed on 7 May 2011.

the spirit of current conventions of internet users than the assumptions and policies practiced by ADR professionals. Interestingly, the formal mediation process conducted on Wikipedia, which is a product of "top down" design, is a discrete, closed process.

As we realize the ease with which users and other non-professional dispute system designers can set up a site for receiving and handling complaints, the question arises as to what value does a dispute systems designer add? One important role for professional dispute systems designers lies in their duty to ensure the fairness and effectiveness of such systems. While technology opens the door for greater user involvement and input, it is also true that the manner in which large organizations currently operate may undermine the ability of certain stakeholders to participate in the design process.[47] As we know, technology can subject stakeholders to power, not only empower them. When evaluating these questions, designers need to be aware of the fact that new technologies represent more than a change in arena for the performance of dispute resolution processes; digital technology is transforming the very nature of these processes and changing their characteristics in ways that are bound to have an important impact on stakeholders and the organization alike. As others have demonstrated, technology is by no means neutral and a particular software design reflects a preference for certain values over others.[48] While this is certainly a concern, it should be borne in mind that the danger for misconduct, negligence or incompetence by a third party conducting a private and flexible ADR process in a face-to-face setting can be of similar, if not greater concern.[49] The same software that promotes a particular value choice also makes design choices more visible, minimizes third party discretion due to enhanced structure, and allows for more ex-post study of the impact of design choices and quality control of decision-making where discretion is employed through data documentation and analysis.

Some of the pressures ODR can generate can be expected to impact dispute resolution professionals more generally, not only those designing these systems. Ombudsmen, mediators, arbitrators and others will have to feel comfortable with technological applications of dispute resolution processes and learn to incorporate these tools and systems either as a principal avenue for addressing conflict or as a supplement to more traditional channels. Undoubtedly, many dispute resolution professionals will find these developments threatening, as they will require additional training and learning.

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47 J. DeMars *et al.*, "Virtual Virtues: Ethical Considerations for an Online Dispute Resolution (ODR) Practice", *Disp. Res. Mag.* (2010) Vol. 17, pp. 6-11.

48 See generally H. Nissenbaum, "Values in Technical Design", in C. Mitcham (Ed.,), *Encyclopedia of Science Technology and Ethics* 2005, pp. ixvi, ixvi-ixx (discussing the challenges of integrating values into the design of technology).

49 See Rabinovich-Einy (2006), pp. 266-267.

The threat posed by ODR to some dispute resolution professionals, however, may run deeper than the mere need to learn new skills. As described above, some ODR tools are based on automated negotiation, which allows for the displacement of the third party. As we have seen, for simple, repetitive types of disputes, these tools can be extremely effective in resolving disputes. eBay reports an impressive 80% success rate for its automatic processes. Similarly, Cybersettle reports that its product "has been proven to reduce average claim cycles by reducing time spent in the negotiation and settlement stage of claim handling. The process provides claims management with enhanced control over of loss payments, avoids litigation costs, and lowers administrative expenses".[50] While it may seem unlikely that an automated process can be effective in addressing more complex and idiosyncratic conflicts, these developments could prove significant over time for two reasons. First, the scope of what constitutes simple, repetitive and mold-like disputes for which automated processes could provide an effective response may prove to be substantial. Second, with the evolution of technological tools, the reach of automated processes may expand to include situations that today seem too complex for automated tools.

Clearly, then, dispute systems designers and other dispute resolution professionals will have to demonstrate their relevance in an era in which access, use and control of information is changing, the nature of expertise is shifting and many of the traditional intermediaries are being displaced. They will have to gain a deeper understanding of the impact the shift to digital communication is having on their field and be able to identify what is changing and what is not.

2.3.2 Physical Boundaries

While traditional DSD theory advocated the separation of the dispute resolution system from the other parts of the organization to ensure that a secure space is created for stakeholders to voice concerns and complaints, in the digital era such rigid separation often seems impossible, even undesirable. The fear that access to dispute information may impact the integrity of the dispute resolution process when it is conducted internally can be compensated in the online setting through increased documentation and transparency regarding the content and enforceability of dispute resolution outcomes. The same technology that makes confidentiality more difficult to sustain, can also provide us with alternatives to ensure that organizations or companies do not abuse the dispute resolution data that is now made increasingly accessible to them, and can be mined and used in much more significant ways than in the past.

50 See <www.cybersettle.com/pub/home/products.aspx>, last accessed 7 May 2011.

To understand why ODR may be attractive to disputants despite the cost in terms of confidentiality, we need to reexamine the rationale for ensuring confidentiality in ADR and the reasons behind the establishment of a "Chinese Wall" between internal dispute resolution units/processes and the rest of the organization's operations. Confidentiality is considered to be a key advantage of ADR processes over formal avenues, drawing disputants to take part in these voluntary processes and allowing them to participate more openly and meaningfully. In terms of confidentiality of proceedings within the organization, the idea was to ensure the independence and impartiality of the dispute resolvers, who were sometimes both employees of the organization and neutrals addressing disputes that relate to the organization, or in which the organization had some indirect interest. The introduction of ODR has challenged the common expectations regarding confidentiality in ADR in general and in internal dispute resolution processes in particular on three levels – the individual level of the disputants, the organizational level (separation between dispute resolution data and other units of an organization), and the intra-organizational level (translating into greater ability and willingness to share dispute resolution data across institutions).

On the individual level, because most ODR processes are based on textual communication, disputants obtain a copy of all communications exchanged as part of the process (with the exception of private communications between the dispute resolver and the other party/ies to the dispute). This means that it can be more difficult to contain the flow of dispute resolution information than in a face-to-face oral process. 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 handling eBay disputes, to forego such demands altogether.[51]

But with this risk, also comes an important benefit in terms of quality control over the process, its fairness and effectiveness. 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 quite easily uncovered.[52] 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. Our view, however, is that over time we can expect the privacy barrier to use of ODR to further decline. Already, social attitudes towards privacy are changing dramatically with the younger generation

51 Rabinovich-Einy (2006), pp. 274-276.
52 *Id.*, p. 278-280.

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. In terms of third party neutrality, then, 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.

New practices that rely on online communication and information processing are generating and potentially capturing more information during the online dispute resolution process than had occurred when the entire process was conducted face to face. DSD had previously emphasized looking for patterns of disputing conduct and addressing them during the DSD process. ODR will challenge institutions developing dispute systems as efforts are made to build trust in the process and, at the same time, use the information and value that are generated as the parties interact with each other and with the mediator.

In the introduction to *Getting to Yes*, Fisher and Ury note that "conflict is a growth industry".[53] If that was true almost three decades ago, it is even more true today. Disputes are a byproduct of transactions and relationships and when such interactions are novel and also complex, even more disputes are likely to occur. If institutions are to be trusted as they use the new media widely, the trust enhancing value of ODR will need to be recognized in contexts in which disputes do not occur or rarely occur.

As one example, the US government is aggressively trying to increase use of electronic health records.[54] As patients acquire electronic access to records that were rarely accessed when they were in paper form, they are likely to discover errors in the records and questionable diagnoses and characterizations in doctor's notes. It is to be expected that online systems for challenging and correcting information in the record will arise. In addition, these records are perceived not only to be helpful in improving individual health but in improving understanding of public health needs. The government has required that some data on the record be in a structured format that will facilitate the data, without the patient's name included, being transferred to the government for public health purposes. This has privacy implications, since there have been many cases of data being lost in the US and there is evidence that with some effort, almost any data can be re-identified and the patient's

53 R. Fisher & W.L. Ury, *Getting to Yes: Negotiating Agreement Without Giving In*, 1981, p. xvii.

54 D. Blumenthal & M. Tavenner, "The 'Meaningful Use' Regulation for Electronic Health Records", *New England Journal of Medicine* (2010) Vol. 363, No, 6, pp. 501-504.

name revealed. As use of such records increases, patient concerns are likely to arise and online resources for responding to these concerns will be needed.

2.3.3 Conceptual Boundaries

As described above, the field of DSD has been premised on the existence of a conceptual boundary separating ADR from what is not ADR and has established additional internal conceptual boundaries within ADR, defining a fixed set of processes, each with their own commonly accepted features. Despite the rhetoric of ADR being comprised of individually tailored processes, leaving much room for creativity and imagination, the reality has been one in which these processes have tended to fit a preexisting mold which is rarely revisited and questioned.

However, developments in the ODR field have undermined what have seemed like firm distinctions between process types, dispute resolution system goals and third party activities. Digital technology is transforming the nature and characteristics of the different dispute resolution processes, blurring prevailing conceptual boundaries within DSD. Dispute systems designers need to realize that the way they have done things in the past is not the only way. Dispute resolution processes can be structured differently than they have been, not only because they must be structured differently when delivered online due to technological constraints, but because it may actually prove to be a better way to design the process in a given context. This realization 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 vs. dispute prevention – are increasingly being blurred with intervention taking place very early on, even without being prompted by a complaint.

In terms of conceptual boundaries between the different ADR processes offered, the emergence of ODR, and more specifically the introduction of technology into the design of the process in the form of the "Fourth Party",[55] have both generated completely new types of processes unimaginable in the face-to-face era and have 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 negotiation-based ODR schemes which include, as described above, problem identification processes (eBay), mechanisms for matching problems and solutions

55 Katsh & Rifkin (2001), pp. 93-95.

(SquareTrade), automated negotiation support systems (SmartSettle) and blind bidding tools (CyberSettle).

All of the above processes escape the previously existing clear cut distinction between direct negotiation and third party dispute resolution giving rise to another *sui generis* category in which the fourth party displaces the third party. In these instances, dispute systems design has a crucial role, perhaps more so than in those cases where a human third party is later involved, because in many ways it determines the power allocation between the parties and the manner in which opportunities and challenges are shared by them.

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 untraditional arbitration process in terms of mandate and procedures for reaching a decision,[56] and an open informal mediation process which also challenges the widespread current notion that mediation should and needs to be offered confidentially.[57] Indeed, as this last point reflects, 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. Benoam, an online arbitration provider, provides a compelling demonstration of these trends. As stated above, Benoam handles the vast majority of property damages claims between insurance companies in Israel ("fender-bender" claims), which are contractually referred to it *in lieu* of the courts. Benoam has, therefore, in effect displaced the court system in this particular domain of disputes. While Benoam emerged as a means for providing a more efficient alternative to the court system, the system and its rules have evolved significantly over time, rendering this private system increasingly formal and less private by offering more nuanced understandings of both flexibility and confidentiality than those typically held in the dispute resolution arena. Benoam has found that in order to preserve its users' trust, it had to both regulate their conduct closely through elaborate rules and by providing consistency on a substantive level.[58] In terms of restricting user conduct and options on such matters as time extensions and choice of arbitrator, Benoam was limiting somewhat the flexibility of the process and

56 D. Hoffman & S. Mehra, "Wikitruth through Wikiorder", *Emory L. J.* (2010) Vol. 59, pp. 174-175.

57 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 for example, Section 8 of the Uniform Mediation Act, available at <www.mediate.com/articles/umafinalstyled.cfm>, last accessed on 7 May 2011.

58 Rabinovich-Einy & Tsur, "The Case of Greater Formality", 2010, pp. 546-552.

the control of the parties but compensated for such loss through ongoing learning of the impact of its rules on participants and outcomes.[59]

Benoam also decided to revisit its initial decision to maintain complete confidentiality of its arbitrators' rulings both internally and externally so as to enhance predictability of the system and, consequently, the consistency and fairness of resolutions rendered. While it chose to sustain external confidentiality, it curtailed somewhat the confidentiality of awards within the system by creating a space in which previous landmark decisions were published and adopted *res judicata* rules and a practice of binding precedents in the system.[60]

We can see how the Benoam case, largely due to the way in which technology has shaped the system and its design, has undermined the sharp dichotomies between flexible and structured systems on the one hand and between private and public systems on the other hand that have typically accompanied the ADR-court divide.

While DSD 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 can contribute to this effort in several ways. For one, it can assist in the automatic detection of problems, obviating the need to passively wait for complaints to arrive and allowing proactive remedying of a problem, even before a potential complainant has been made aware of its existence. This example can be 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 site.[61]

Another, perhaps more subtle way in which digital technology promises to enhance prevention efforts is by lowering barriers for voicing complaints and concerns, allowing them to stream in at an early stage, perhaps even before they have materialized into full-fledged disputes or prior to being experienced by additional potential claimants. This impact can be evidenced in the OGIS example, mentioned above. While OGIS was set up to mediate disputes it quickly understood that providing information effectively at an early stage can make unnecessary the providing of a mediator at a later stage.[62] ODR is generally viewed as an alternative to ADR or the courts and is generally evaluated in the same way, largely in terms of numbers of disputes successfully resolved. Our experience with OGIS suggests

59 *Id.*, p. 549.
60 *Id.*, pp. 555-556.
61 Hoffman & Mehra (2010), pp. 207-208.
62 Katsh & Rabinovich-Einy (2012).

that evaluation of an ODR effort may be more complex in that the seeds of an effort to prevent disputes may lie in the technology employed to resolve disputes.

In the OGIS example, many disputes are more a consequence of poor communication than of a clash of interests. While media organizations may be highly familiar with FOIA, individuals filing requests may not understand what information they are entitled or how the process works. Persons requesting files may not trust the agency that possesses the files and the agency may not be providing adequate feedback to the requestor of its need for some additional time to make a decision. In addition, before a decision is reached, many cases involve a negotiation between agency and requestor as to reducing the scope of the request or the size of the request. There is, in other words, an informal dispute resolution process that often occurs before the decision is announced and the manner in which that occurs can affect whether the requestor files a request for assistance with OGIS.

At the same time that technology provides new tools to prevent disputes, it lowers the barriers to complaining and initiating a dispute resolution process. Merely placing forms online or providing easy access to customer service phone numbers will increase the number of filings. Amazon will facilitate the return of books, something it can automate, but makes it extremely difficult to speak to someone. The only way one can find an Amazon phone number is through a search engine, not through the Amazon website. Another way of looking at this is that Amazon can respond to grievances by technology and, by doing so, prevent a grievance from evolving into a dispute.[63]

While the success of ADR agencies that simply resolve disputes may be properly measured by the size of caseload and the manner in which disputes are resolved, agencies using ODR in a way that can impact the larger system that generates disputes may need to be looked at differently. A reduction in caseload in such instances may actually be a sign of success and improving communication may have more long term benefits than responding to individual cases. 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 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.

63 W.L.F. Felstiner, R.L. Abel, A. Sarat, "The Emergence and Transformation of Disputes: Naming, Blaming, Claiming", *L. & Soc'y Rev.* (1980) Vol. 15, pp. 631-654.

Finally, digital 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 multiple lenses on an ongoing basis. While online entities offering ODR services have had a head start in recognizing this potential (as can be seen in the eBay example described above), 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, who have also been increasingly adopting technology into their case management and filing operations, even if not as a substitute to the proceedings themselves.

The blurring of conceptual boundaries on all three fronts described above calls for an ongoing reevaluation of the assumptions and conceptions that underlie current design of dispute resolution systems and processes, opening up new possibilities and options tailored to particular circumstances.

3 Conclusion

Alternative dispute resolution processes have become the primary form of dispute resolution during the last several decades. In the late 1980s, after approximately a decade of growth, it was realized that ADR needed not only skilled practitioners but systems. These systems either assisted practitioners as caseloads increased, or identified causes of disputes and reduced the levels of disputing. After a decade or so of growth in the use of ODR, something very similar is occurring. An array of online tools is being developed to assist practitioners and parties to resolve both online and offline disputes. As we point out in this chapter and as will be developed at greater length in a forthcoming article, ODR needs to orient itself to systems as well as tools and ADR needs to incorporate new technologies into the theory and practice of dispute systems design.[64]

The attraction of ADR at its origins lay mostly in the hope for the resolution of disputes more efficiently, quickly and conveniently than occurred in court. Over time, the value of ADR in being able to generate outcomes that were also more flexible and responsive to the disputant's needs and interests became clear. ODR, in its original form, was also perceived to be largely aimed at providing disputants, often located in different jurisdictions, with a convenient and efficient alternative when no face to face alternative was feasible. Increasingly, however, ODR applications are being linked to powerful information

64 E. Katsh & O. Rabinovich-Einy, "Technology and the Future of Dispute System Design", *Harv. Neg. L. Rev.* 2012 (forthcoming).

machines, machines that either enhance the face to face process or provide parties with alternatives not possible in face to face processes.

Dispute systems design which employs technology and also embeds technology in the system created is likely to lead ODR down a path that will generate new options, new challenges, new roles and new expectations. DSD oriented around ADR highlighted new professional roles and conceptual frameworks, and technology-oriented DSD will likely do the same. The use of technology tends to lead both to the emergence of more complex processes and also to technological resources to manage these more complex processes. Information machines should be particularly adept at preventing disputes by tracking cases and identifying causes of problems. Technology can not only reinforce processes but change them and this is something that is inevitable as the field of DSD itself is transformed by information and communications technologies.