1 ODR: A Look at History

A Few Thoughts About the Present and Some Speculation About the Future

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ODR's origins are traceable to the early 1990s and to a prediction and an observation made at the time. The prediction was that the Internet, as it continued to evolve and as its use increased, would not be a harmonious place. This might seem obvious to anyone today when consumer and copyright disputes are commonplace, when identity theft is increasing and when anti-virus software is required simply to keep a computer operating. It was not so obvious, however, in the early to mid-1990s before there was spam, phishing, music downloading, buying and selling online, multi-player games, etc. Indeed, the hope often expressed at that time was that this new online environment for commerce, education and entertainment would find ways to avoid the kinds of conflict that many of these activities had generated in the past in the physical world.

Even some of those who did understand that a highly active, creative and potentially lucrative environment would inevitably generate disputes were, at the same time, skeptical that online resources could be used effectively to assist those involved in a dispute. Dispute resolution, at the time, was assumed to require a face to face meeting, whether in or out of court. The observation alluded to earlier was that dispute resolution, wherever and however it occurred, involved the communication and processing of information. Such interactions might occur most easily face to face but computers were information processing machines and the Internet facilitated communication. Software, by definition, manages the flow of information and, therefore, with appropriate software, interactions between disputants might be managed online in a manner that would lead to an agreement. ODR, therefore, would not only be needed but it would also be feasible.

Some of the early skepticism about the need for and use of ODR derived from the fact that the Internet had been invented in 1969 and for the first twenty to twenty-five years of its existence there were relatively few disputes. Its users during this period were mainly in academia and the military and, when there were disputes in the relatively small user population, they were settled informally. During this period of time, few ordinary citizens were aware of the Internet and if they had been aware, they would have had no way to

connect to it since the first Internet Service Provider did not appear until 1992.[1] It is also fair to say that if one had been aware of the Internet and had somehow connected to it, one would have found it both uninteresting, because of the limited range of activities supported, and uninviting, in that a certain level of computer skills was needed to engage in these activities.

Until 1992, the National Science Foundation, which was managing the Internet at the time, banned its use for commercial purposes.[2] Thus, even if one had found a way to connect to the Internet and even if one also had the computer skills to navigate the Internet, and if one did all this with the goal of purchasing something, one would not have found anything to buy. There were no consumer or commercial disputes not because there had been a systematic and intentional effort to design an environment that would not generate disputes but because there was an online population with very few ways to generate a dispute, certainly far fewer ways than are possible today. Until there were disputes there was no pressing need to think of dispute resolution and the range and quantity of disputes that would suggest a need for dispute resolution were not present until the early to mid-1990s.

1 The Origins of ODR

The first half of the 1990s was a period of significant change in the online environment. The World Wide Web was invented in 1989 and ISPs and the first graphical browsers appeared a few years later. Netscape, the most popular browser at the time, was quite user friendly and the online population began to grow as it became easier to acquire Internet access and it was discovered that it was relatively easy to communicate and to obtain large quantities of information online.

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1 S. Ilacqua, "The First ISP", <www.usenix.org/publications/login/1999-2/isp.html>. Even by 1995, it was not very easy for ordinary citizens to obtain Internet access. In April of that year, for example, Alok Kumar wrote: By now everyone has heard of the wonders of the Internet. The media barrages us with daily articles about the Internet's incredible size, skyrocketing growth, and utter trendiness. All the cool people have email addresses and flaunt them. For the most part, however, enthusiasts ignore the challenges faced by ordinary people who try to use the Net. To most folks, the riches of this glamorous information superhighway lurk right around the corner, tantalizing but out of reach. There are several paths to Internet connectivity all based on your position in the world. If you happen to work at a high-tech company or a well connected corporation, then you will already be hooked up the Net. If you happen to be a student at almost any college or university, the school can give you direct access to the Internet via an "e-mail account". If you're still not included in the above, then welcome to the real world, you have lots of company. A. Kumar, "101 Ways to Hook Up to the Internet", <www.duke.edu/eng169s2/group4/alok/English/hookup.htm. See also *Bureau of the Census, Survey of Internet Usage*, Spring 1995, <www.census.gov/mso/www/npr/Inet95fullreport.pdf>.

2 J.P. Kesan and R.C. Shah, "Fool Us Once Shame on You – Fool Us Twice Shame on Us: What We Can Learn From the Privatizations of the Internet Backbone Network and the Domain Name System", 79 *Wash. U. L.Q.* 89 (2001), <http://papers.ssrn.com/sol3/papers.cfm?abstract_id=260834>.

It was at this time, around 1994, that it began to be clear that cyberspace, in the future, would not be a harmonious place and that there would be a need for tools, resources and expertise in responding to the disputes that would occur. In 1996, the first articles about ODR appeared in a law review,[3] the National Center for Automated Information Research (NCAIR) sponsored the first conference devoted to ODR,[4] and funding from NCAIR launched the first significant ODR projects, the Virtual Magistrate, the Online Ombuds Office at the University of Massachusetts and a family dispute ODR project at the University of Maryland. At that point, the Internet was twenty-seven years old. As already noted, for much of that time it had been used by very limited numbers for fairly limited purposes. The domain name system had come into being in 1985 but in 1990 there were only 7800 domain names and a single person managed the system.[5] Formal dispute resolution systems did not exist and apparently were not needed. This changed, however, as the Internet grew in a variety of new directions. Disputes are a byproduct or side-effect of transactions and relationships since, inevitably, a percentage of interactions in any environment can be expected to encounter problems. With the surge in e-commerce, more transactions were fostered online and, as a result, more reports of disputes were occurring.

A year after the NCAIR conference, the Hewlett Foundation provided a grant to the University of Massachusetts to establish the Center for Information Technology and Dispute Resolution (later the National Center for Technology and Dispute Resolution).[6] The goal of the Center was to support the development of the field of ODR. One of the Center's first activities was to organize Cyberweek, an all-online conference that enabled over four hundred persons from many different countries to engage in discussions about ODR, to participate in simulations and to experience demonstrations of software. Cyberweek has been an ongoing event of the Center and in 2010, it was co-sponsored with the ADR Hub of Creighton University.[7]

There were several physical conferences about ODR held in the late 1990s and the early years of the twenty-first century but the one that has continued to be central to the field is the International ODR Forum. The original idea for the Forum came from Daewon Choi, an official of the United Nations Economic Commission for Europe. Mr. Choi invited me to help organize the Forum, the first two of which were held in Geneva in 2002 and 2003. Since then the Forum has been held in Melbourne (2004), Cairo (2006), Hong Kong

3 E. Katsh, "Dispute Resolution in Cyberspace", 28 *Conn. L. Rev*. (1996) 953; E.C. Lide, "ADR and Cyberspace: The Role of Alternative Dispute Resolution in Online Commerce, Intellectual Property and Defamation", 12 *Ohio St. J. On Disp. Resol.* (1996) 193.

4 <www.odr.info/ncair>.

5 There are over one hundred million domain names today. See <www.domaintools.com/internet-statistics>.

6 <www.odr.info>.

7 <cyberweek.umasslegal.org/program>.

(2007), Liverpool and Victoria (Canada) (2008), Haifa (Israel) (2009), Buenos Aires (2010), Chennai (India) (2011). The 2012 Forum will be held in Prague in June 2012.

Courts, in the mid-1990s, were beginning to struggle with jurisdictional questions such as where an event occurred if parties were in different places and were interacting online.[8] Many of the legal questions surfacing at the time, however, while interesting, were largely irrelevant to persons who found themselves involved in a dispute arising online. In the vast majority of situations where parties were in different places, land based courts and systems were not really useful options for persons who felt aggrieved.

The network's rapid communication and information processing capabilities, however, did open up opportunities for creative approaches and responses to problem solving for cases that did not go to court. In other words, many of the same forces that contributed to disputes could also be employed to resolve disputes. Today, there is little doubt that there is an ongoing and growing need for ODR. There are indeed large numbers of disputes stemming from online activities; in fact, there are a greater numbers of disputes than anyone predicted. As will be noted later, eBay itself claims to have handled over sixty million disputes during 2010. In addition, over this period of time, how and when ODR is being used has also expanded. Without neglecting the need to respond to disputes arising online, ODR has also been focusing attention on traditional kinds of disputes occurring offline. More to the point, the boundary line between the online and offline worlds is, as "the digital world merges with the physical world",[9] much less clear than it used to be. As a result, the challenge of ODR currently is less focused on where the disputes originated than it is in finding tools and resources that can be as effective in any dispute regardless of where it originated.

2 The Evolution of ODR

In one of the earliest pieces written about ODR, it was noted that

> context can influence the approach of the neutral, the choice of process, and the behavior and attitudes of disputants. In any environment, context can affect the kinds of disputes that are likely to arise and also affect who the parties are who are likely to be involved in the dispute. Context implicitly feeds us information about the extent or nature of the injury as well as how the injury or

8 See, for example, *Zippo Manufacturing Co. v. Zippo Dot Com, Inc*., 952 F. Supp. 1119 (W.D. Pa. 1997) and *Bensusan Restaurant Corp. v. King*, 126 F.3d 25 (1997).

9 N. Gershenfeld, *When Things Start to Think*, Coronet Books, Philidelphia 1999, p. 10.

> dispute is perceived by those involved. Context situates a dispute in a particular time and place, and we react and adjust accordingly as the parameters of the environment become clear to us.[10]

The current online environment may be a descendant of the environment that existed fifteen years ago but the context in which disputes are occurring is vastly different. The range, variety, and number of disputes stemming from online activities have grown as the range, variety and number of online activities have increased. Ten years ago, many were skeptical of the need and potential of ODR; today, it is well understood. Most importantly, ODR, which was originally focused on disputes related to online activities, is now employed in offline disputes. Rather than finding disputes that can utilize ODR, the new challenge is finding tools that can deliver trust, convenience, and expertise for many different kinds of conflicts.[11]

In any context, levels of disputing are influenced by the measures put in place to anticipate and prevent possible disputes.[12] The pioneers of the Internet were simply focused on a technical challenge, on creating new capabilities for communicating; they did not anticipate the kind of growth that has occurred and did not focus on possible long-term social consequences. For most of the first twenty-five years of its existence, the Internet did not address the issue of disputes and dispute resolution because, as noted above, there were sufficiently effective informal processes. By the early 1990s, however, this began to change as many students arrived on campus with personal computers and many people off-campus were becoming aware of the Internet. As more people acquired Internet access and as e-mail and the Web became more easily useable, it was predictable that a growing population of users would generate disputes and this in fact did occur.

In one of the earliest and most famous disputes during that time, a participant in a text-based virtual world, LambdaMoo, assaulted the virtual characters of several women participants.[13] Journalist Julian Dibbell wrote an article entitled *A Rape in Cyberspace*, which remains one of the most thought provoking essays about disputes in cyberspace.[14] It is not

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10 E. Katsh, "The Online Ombuds Office: Adapting Dispute Resolution to Cyberspace", <www.odr.info/ncair/katsh.htm>.

11 E. Katsh and J. Rifkin, *Online Dispute Resolution: Resolving Disputes in Cyberspace*, (2001) 73 ("[N]o ODR system will be used or be successful unless it is convenient to use, provides a sense of trust and confidence in it use, and also delivers expertise. Described a little differently, such systems need to facilitate access and participation, have legitimacy, and provide value.").

12 E. Katsh and O. Rabinovich-Einy, "Technology and the Future of Dispute Systems Design", *Harvard Negotiation Law Review* (forthcoming).

13 The Case of Mr. Bungle and the "Cyber-Rape", <www.albany.edu/faculty/rpy95/webtext/bungle.htm>.

14 J. Dibbell, "A Rape in Cyberspace: How an Evil Clown, a Haitian Trickster Spirit, Two Wizards, and a Cast of Dozens Turned a Database Into a Society", <www.juliandibbell.com/texts/bungle_vv.html>. See also

surprising that the participant, whose name in this virtual world was Mr. Bungle, turned out to be a university student in New York.[15]

Early online disputes involving university students touched a broad range of behaviors. In 1994, one of the first Internet-related copyright cases involved an enterprising M.I.T. student, David LaMacchia. LaMacchia allowed others to upload and download software from his account.[16] Similarly, one of the most publicized early First Amendment disputes on the Net involved a college student from the University of Michigan.[17]

Colleges and university students are still involved in many online conflicts, most notably file sharing. However, the percentage of students in the population of Internet users is much smaller today than it was in the first half of the 1990s. In 1992, Internet Service Providers emerged and it was then possible for persons not affiliated with a university to obtain an account that would provide access to the Internet. With a larger and more global user-base, the range of online interactions as well as the range of disputes began to grow as well.

In August 1995, Jeff Bezos launched Amazon[18] and Pierre Omidyar founded eBay a month later. Netscape's famous initial stock offering was also in the summer of 1995,[19] a year after the first version of the Netscape browser was released. E-commerce depends on users not only being able to conduct transactions, but being willing to do so. Decisions about price are important in attracting the attention of interested buyers, but users still need to trust that the goods exist and will have a timely delivery.[20] Judgments about acceptable levels of risk are affected by many variables and users may assume higher risk in exchange for lower cost or higher cost in exchange for lower risk. eBay's success derived considerably from recognizing this and from putting in place a feedback system to provide buyers with more information about a seller. This system is a reputation device for trust enhancement and risk reduction that involves users posting messages about whether a transaction with a

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J. Mnookin, "Virtual(ly) Law: The Emergence of Law in LambdaMOO", <www.usc.edu/dept/annenberg/vol2/issue1/lambda.html>.

15 S. Wellman, "Radical Scholars Interface at Duke", *Accuracy in Academia*, <www.academia.org/campus_reports/1998/november_1998_1.html>.

16 Online Center for Engineering and Science at Case Western Reserve University, The *David LaMacchia* case, <www.onlineethics.org/Resources/19049/lamindex.aspx>.

17 *United States v. Alkhabaz*, 104 F.3d 1492, 1493 (6th Cir. 1997). See also "Policing the Internet: Jake Baker and Beyond", *Mich. Telecomm. & Tech. L. Rev*., available at <www.umich.edu/~mttlr/archives/bakerconf>.

18 Amazon.com, Inc., *Annual Report* (Form 10-k), at 3, available at <http://library.corporate-ir.net/library/97/976/97664/items/193688/AMZN2005AnnualReport.pdf>.

19 K. Kelly, "We Are The Web", *Wired* (Aug. 2005), available at <www.wired.wm/wired/archive/13.08/tech.html>.

20 C. Rule, *Online Dispute Resolution for Business*, 2002, pp. 93-94.

particular user was successful. eBay's goal, and the goal of all businesses and marketplaces is to provide both low prices and low risk.

The feedback system on eBay made users feel more confident that problems would not occur but it did not eliminate disputes between buyers and sellers. In 1999, eBay asked the University of Massachusetts Amherst Center for Information Technology and Dispute Resolution to conduct a pilot project to mediate disputes between buyers and sellers.[21] The pilot project handled two hundred disputes in a two week period, by far the largest number of disputes ever handled online, and it prompted eBay to include dispute resolution as an option for buyers and sellers in the event a transaction was unsuccessful. Initially, eBay's dispute resolution process was contracted out to an Internet start-up, SquareTrade, and several years later taken over by eBay. By 2010, the number of disputes handled by eBay reached the extraordinary figure of sixty million.

During the Internet "bubble" of 1999-2000, many ODR start-ups appeared and then disappeared. A few, such as Smartsettle, Cybersettle and The Mediation Room, remain. eBay's original ODR provider, SquareTrade, shifted its attention from ODR to consumer warranties in 2006. ICANN and the Uniform Dispute Resolution Policy for resolving domain name disputes was instituted in 1999. When it began, it was a largely an offline process but over time it has become increasingly online.

As this is being written in the spring of 2011, ODR start-ups are beginning to reappear and it is worth asking whether this is a response to an actual need or is simply a new "bubble". All of the new start-ups cannot be expected to survive but the likelihood is that this is not a repeat of 1999-2000. There are a variety of reasons for this:

Interest in ODR has grown and its focus has expanded. Government agencies, such as the National Mediation Board (NMB)[22] and the Office of Government Information Services (OGIS)[23] in the United States, are adopting and promoting ODR as an effective method of resolving problems with citizens. Government use of ODR promises to be a very large market. eBay is still the most noteworthy ODR effort but there are now others that can be pointed to. Cybersettle, for example, has moved beyond its original focus on insurance disputes and is helping to resolve claims brought against New York City, *e.g.* pothole disputes. The marketplace for ODR is now offline disputes as well as those originating online and public sector disputes as well as those originating in the private sector.

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21 E. Katsh, J. Rifkin and A. Gaitenby, "E-Commerce, E-Disputes, and E-Dispute Resolution: In the Shadow of eBay Law", 15 *Ohio St. J. On Disp. Resol.* (2000), pp. 705, 708-709.

22 <www.nmb.gov>.

23 <www.nara.gov/ogis>.

Interest in ODR has broadened geographically. The annual International Forum on ODR mentioned earlier has been hosted at least once on every continent. The United Nations Commission on International Trade Law (UNCITRAL), the mail United Nations body focused on international trade law, is working on rules and policies for ODR in cross-border disputes. In Israel, *Benoam* is an online arbitration system established in 2002 to resolve subrogation claims between insurance companies over property damages incurred in "fender-bender" car accidents.[24]

Software appropriate for ODR is more available today. More software choices exist, some in general use and some, such as the Community Court of Modria.com and the Web-based applications of Juripax.com and FairOutcomes.com that were specially developed. The last ten years have also seen more interest in ODR on the part of computer scientists and more collaboration between the ODR and computer science fields.

The alternative dispute resolution (ADR) community has come to understand and accept ODR. Part of this is due to increasing use of technology generally. Mediators who may not have used the Web at all in 1999 and were unaware of its potential now use it regularly for e-mail, purchasing goods, etc., and understand the value of the Web much more.

For online disputes, the parties may be looking for a system that can handle the whole process. For offline disputes, however, the most common goal will be to find tools that can enhance elements in the process rather than managing the whole process. If mediation consists of several processes linked together, *e.g.* brainstorming, caucusing, prioritizing options, drafting, etc., software can be targeted to a particular process. For example, STORM, software developed at the University of Massachusetts facilitates brainstorming at a distance. It reduces the need for some face to face meetings and has the added benefit of allowing, if the mediator so desires, brainstorming to be conducted anonymously.[25]

As will be explained below, "conflict is a growth industry"[26] and it is less and less possible for firms to ignore disputes or treat them as a minor and insignificant issue. As explained in more detail below, the Web 2.0 model in which the value of a site derives from the contributions of users has, as an inevitable side effect, disputes. It is also increasingly recognized that ODR has value in two ways, by resolving disputes and also by being part of an institution's trust building effort. During the "bubble" it was assumed that price and convenience were all that mattered to consumers and were what would differentiate sellers from each other. Trust and perception of low risk is now understood

24 See O. Rabinovich-Einy and R. Tsur, "The Case for Greater Formality in ADR: Drawing on the Lessons of Benoam's Private Arbitration System", 34 *Vermont L. Rev.* (2010) pp. 529, 542; O. Rabinovich-Einy and R. Tsur, "Unclogging the Collision Course: The Evolution of Benoam, an Online Private Court", *ACResolution* (Winter 2010), p. 8.

25 E. Katsh and L. Wing, "Ten Years of Online Dispute Resolution (ODR): Looking at the Past and Constructing the Future", (2006) 38 *University of Toledo Law Review* 1.

26 R. Fisher and W. Ury, *Getting to Yes*, New York, Penguin Books 1981, p. xvii.

to be necessary as well and ODR falls in the trust building/risk reduction category when users know that if a problem arises it will be responded to.

The era of ODR has largely paralleled the development and use of the Web. The Web was invented in 1989 but did not begin its sharp rise in use until graphical browsers such as Netscape and Internet Explorer became available several years later. This early period, later labeled Web 1.0, initially brought to users the novel capability of seeing colorful combinations of text and images on a screen and instantly obtaining information at a distance. Search engines came a little later and made finding information even easier but to anyone at that time experiencing the Web for the first time, it was astonishing simply to click on links, view a Web site that might be anywhere, and see the information one was seeking on a screen.

Web 1.0, by providing information about products for sale, was a basic piece of the infrastructure that was necessary for ecommerce to grow. There were other components that gradually appeared. Commercial sites needed not only to provide information about products but to be capable of interacting with potential customers and receiving payments. eBay, when it began, relied on buyers sending checks to sellers and, in general, it took several years for credit card holders to feel safe in providing a credit card number in paying for something. The maturing of Web 1.0 saw an increase in credit card use, reliance on databases and the development of search engines. In general, the Web progressed from providing information to providing goods and services, a progression that is understandable if one sees an interactive service as consisting of a series of information exchanges strung together.

As Web 1.0 matured, it also became more complex. Complexity increased in the sense that Web sites contained more components and many of the components were linked to other Web sites. This impacted disputes because, in general, the more components, connections and relationships there are, the more possibilities there are for something to go wrong. An electronic payment for a purchase that involves communication over a network and a bank or some other financial institution somewhere else approving the transaction while the buyer is still looking at the screen, makes a dispute more likely than when a purchase is made using cash in a physical store face to face. The movement from the original relatively simple Web site providing information to Web sites fostering many millions of transactions was also a movement that made disputes more likely.

The increase in the value and use of the Web has been rapid in the last fifteen years and largely coincided with technological developments that contributed complexity to Web sites, powerful new tools for developers and also ease of use to Web users. The following

technological trends are only a sample of rather remarkable recent advances in communications capabilities, all of which supported the growth of the Web.

Speed – Dial-up connectivity to wired broadband to wireless.
Portability and mobility – Desktop to laptop to netbook to smart phone/tablet.
Storage – Megabytes to gigabytes to terabytes.
Communications – Costly telephony to free (almost) telephony.
Digitized currency – Reliance on paper money to reliance on money in electronic form.

These and other technological developments led not only to a Web with an expanding range of capabilities but to the phenomenon labeled Web 2.0.[27] A key feature of Web 1.0 was that value derived from what the Web site owner provided. Web 2.0 sites get most of their value from users. eBay was an early Web 2.0 company since buying and selling were transactions that provided revenue to eBay but to which eBay was not a party. Wikipedia, Facebook and TripAdvisor are other examples of sites that provide a space but the actual content and value comes from what is provided by users.

This is a development that has been important for the history of ODR. As eBay learned early, as Wikipedia learned over time,[28] and as Facebook will inevitably learn, Web 2.0 companies get value from users but only if the users sense low risk in using the system. Web 1.0 companies could build trust by creating a brand but Web 2.0 sites must figure out in each case how to protect those whose involvement in the site also provides the value of the site. The hope of many Web 2.0 companies initially was that they could simply provide a space for users and not be responsible for problems that surfaced among users. As eBay and Wikipedia illustrate, over time this goal becomes less and less possible. Particularly for Web 2.0 sites, it has become clear that users need to feel as little risk as possible in using a site or they will move on to a competing site. It is in this context that it will be clear that ODR can become an asset to the enterprise rather than being viewed as something peripheral.

3 The Future Trajectory of ODR

While the current capabilities of digital devices are enormously impressive, future increases in power and reductions in cost are inevitable. Increasingly powerful information technologies provide capabilities for manipulating and, to a considerable extent, removing constraints of time and space that are present in the physical environment. They foster

27 T. O'Reilly, "What Is Web 2.0", <http://oreilly.com/web2/archive/what-is-web-20.html>.
28 <http://en.wikipedia.org/wiki/Wikipedia:Dispute_resolution>.

entrepreneurship and creativity as faster, cheaper, and more flexible communication and information processing resources become available. They support economic growth as new markets are formed. This is the positive view. The less positive perspective displays a picture of technology-generated change that is broader and deeper and, as a consequence, likely to generate novel uses and, at the same time, more disputes and new kinds of disputes.

As already noted, innovators and entrepreneurs tend to focus more on creating, building and marketing than on trying to figure out the social consequences of what they are building. For example, the inventors of the Internet in 1969 were simply interested in accomplishing the technological feat of moving data over a network. Tim Berners-Lee, the inventor of the Web, wanted to further facilitate the distribution of information.[29] The main goal for subsequent developers of cyberspace, whether it was the creation of browsers, search engines, social media or anything else, was largely the same, to operationalize an idea and, in many cases, to operationalize the idea in a way that maximized financial return.

The late Neil Postman described the effects of technological change as follows:

> [a]ll technological change is a trade-off. I like to call it a Faustian bargain. Technology giveth and technology taketh away. This means that for every advantage a new technology offers, there is always a corresponding disadvantage. The disadvantage may exceed in importance the advantage, or the advantage may well be worth the cost. Now, this may seem to be a rather obvious idea, but you would be surprised at how many people believe that new technologies are unmixed blessings. You need only think of the enthusiasms with which most people approach their understanding of computers. Ask anyone who knows something about computers to talk about them, and you will find that they will, unabashedly and relentlessly, extol the wonders of computers. You will also find that in most cases they will completely neglect to mention any of the liabilities of computers. This is a dangerous imbalance, since the greater the wonders of a technology, the greater will be its negative consequences.[30]

The lack of attention to dispute resolution in many entrepreneurial efforts is a flaw that is compounded by the irrelevance of courts for many if not most disputants. The late Karl Llwellyn, several decades ago, had written "[w]hat, then, is this law business about? It is about the fact that our society is honeycombed with disputes. Disputes actual and potential,

29 T. Berners-Lee, *Weaving the Web: The Original Design and Ultimate Destiny of the World Wide Web by its Inventor*, Harper, San Francisco 1999.

30 <www.mat.upm.es/~jcm/neil-postman--five-things.html>.

disputes to be settled and disputes to be prevented; both appealing to law, both making up the business of law…. This doing something about disputes, this doing of it reasonably, is the business of law". Today, however, the business of law seems less and less to include "doing something about disputes" and it is even more difficult to find examples of it being done "reasonably". As a result, we are in an age where "alternative" dispute resolution has become the primary model for responding to conflict.

Where does this leave ODR and where can we expect ODR to be situated in the future? To many today, ODR is viewed as an extension of ADR in that it largely supports ADR processes and the third party neutral at the heart of ADR processes. It also continues the trend of locating dispute resolution outside the formal institutions supported by government. As it evolves further, however, ODR may be as different from ADR as ADR is from litigation in court.

The metaphor most often employed to explain the use of ODR is the "Fourth Party".[31] In its original and current incarnation, the "Fourth Party" primarily assists the third party neutral, generally providing conveniences and efficiencies. It embodies mostly communications capabilities that allow tasks to be performed more quickly or at a distance. The information processing capability of software is not absent but it is also less developed than the communications side.

The future potential of the "Fourth Party" and the future of ODR is likely to involve fewer advances in speed and greater advances in information processing, an evolution of the less developed side of the "Fourth Party". The authors of another chapter in this book note that:

> [w]hen a negotiation problem is modeled, a computer can act as an intelligent agent using optimization algorithms that seek the best solution…Optimization algorithms utilize detailed and highly accurate information from all parties, information that they would never provide each other and in some cases not entrust to a human mediator. With anything other than the very simplest of cases, this optimization is beyond the capabilities of any unassisted human.[32]

As the possibilities suggested by this statement are pursued, the trajectory of ODR development may be in a direction not really anticipated today, one that takes more seriously the role that information can play not only in how disputes are resolved but in how they can be prevented. The "Fourth Party", in other words, is likely to encroach on the role of

31 E. Katsh and J. Rifkin, *Online Dispute Resolution: Resolving Conflicts in Cyberspace*, Jossey-Bass, San Francisco 2001.

32 See the chapter 16 on ODR and eNegotiation in this volume.

the third party neutral just as ADR and the third party neutral encroached on more formal dispute resolution processes.

Looked at slightly differently, ODR may even turn out to be of value to the courts. If eBay can handle many millions of disputes and government agencies can take advantage of new tools to engage citizens, courts should be able to adapt to a new kind of alternative, one that is less an alternative to litigation and more an alternative to the physical structures in which courts are located and to the inefficient and expensive use of human labor that typifies even small claims courts.[33]

ODR is the only approach to dispute resolution and prevention that can play a role not only in a highly complex future but one in which change is occurring at a rapid pace. Computer scientist Raymond Kurzweil has argued:

> An analysis of the history of technology shows that technological change is exponential, contrary to the common-sense "intuitive linear" view. So we won't experience 100 years of progress in the 21st century–it will be more like 20,000 years of progress (at today's rate). The "returns", such as chip speed and cost-effectiveness, also increase exponentially…Human life has changed far more in the twentieth century than in the nineteenth century. Human life expectancy went from 39 years in 1800 to 47 years in 1900, a 20% increase. It then increased to 77 years by 2000, a 64% increase. Although the railroad was unquestionably important, very few people were impacted by electricity, electric light, telephones, or cars by 1900. These innovations took decades to be adopted by even a quarter of the US population. Adoption of innovations today is faster by an order of magnitude.[34]

It is not unreasonable to look at the field of dispute resolution and conclude that it may also need to change "by an order of magnitude", something only ODR could provide.

33 For a recommendation on using ODR in small claims courts, see E. Katsh and J. Aresty, "A New Face for Small Claims Court", *Boston Globe*, 29 September 2007, <www.boston.com/news/globe/editorial_opinion/oped/articles/2007/09/29/a_new_face_for_small_claims_courts>.

34 R. Kurzweil, "The Singularity", *The Reality Club*, <www.edge.org/discourse/singularity.html>.