

# Leveraging Technology in the Ombudsman Field: Current Practice and Future Possibilities

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## ABSTRACT

This article looks at the possible uses of technology to augment ombudsman practices. The increased use of technology in society impacts the way in which clients may wish to communicate with ombudsmen, and the authors argue that it is incumbent on ombudsman practitioners to stay relevant by the use of technology.

## KEYWORDS

ombudsman, online dispute resolution, technology, ODR, software, hardware

## Where Is the Ombudsman Office of the Future Headed?

In a March 2011 post on the “Crystal Ball” section of the IOA website<sup>1</sup>, members discuss several issues related to technology, including privacy, e-discovery, and confidentiality. These are some of the same issues that have come to the fore in discussions about online dispute resolution (ODR) technology and dispute resolution generally, all of which have implications for practice and ethics for ombudsmen and other dispute resolution practitioners (Rainey 2014). Other technological developments have affected (and will affect) the ethics of the profession, but none of the game-changing technology that may be applied to dispute resolution in the future seems to be a general topic of discussion among current ombudsman practitioners. The risks and downsides are discussed at length; the opportunities seem largely ignored.

We have been asked to survey current practice to comment on the use of technology to enhance the work of ombudsman offices, and to look ahead to where the practice of the ombudsman may be headed, given the rapid advance of ODR tools being developed for use in general dispute resolution. Predicting the future is risky. In fact, more than one person has said “Gee—I wish I hadn’t said that,” after “the future” has demonstrated the flaws in her or his vision. The risks notwithstanding, we feel confident in predicting that ODR technology will feature prominently in ombudsman practice in the near and distant future. If the emerging generations of the workforce and the public who use ombudsman offices can bank online, buy airline and concert tickets online, and meet future spouses online, then why, they will surely ask, can’t they contact and/or work with an ombudsman online?

## What Is the Current State of Technology?

Most ombudsman offices do not currently rely on information and communication technology (ICT) to carry out their missions. We can cite examples of ombudsman offices that blend current practice and the use of ICT later in this essay, but that is not the status quo for most ombudsman offices. In this discussion of the future of ombudsman practice, we will use *ODR* as a shorthand reference for the array of hardware and software available to ombudsmen and others in the business of conflict engagement. The term *ODR* dates from the mid-1990s and the development of e-commerce with its attendant virtual disputes, and is connected to the concept of the “fourth party,” a reference to the active role that ODR technology plays in conflict engagement systems that use ICT to conduct all or part of their work.<sup>2</sup>

In an essay on the use of technology by ombudsmen, Fowlie argues that there are two basic ways ICT interacts with ombudsman offices through ODR technology:

There are two basic branches of ODR, both based on the role of technology. The first branch may be called “Technology Based.” Technology-based ODR refers to those systems where technology plays an active role in conducting the dispute resolution. These would include blind bidding systems, or e-commerce systems such as those developed and employed by eBay.

The second branch of ODR consists of technology-assisted solutions. Technology-assisted ODR refers to the use of technology to augment alternative dispute resolution (ADR) processes that exist independently of the technology. (Fowlie 2012, 325–40)

Technology-based ODR can fundamentally affect the way ombudsmen do business. Technology-assisted ODR takes human-based functions and actions that currently exist in ombudsman offices and uses ICT to fulfill those functions or engage in those actions.

### TECHNOLOGY-ASSISTED OMBUDSMAN WORK

Following are examples of how the ombudsman offices of three organizations are using ODR technology: the Internet Corporation for Assigned Names and Numbers (ICANN), the U.S. Army Medical Command (MEDCOM), and the U.S. National Mediation Board (NMB).<sup>3</sup>

The ICANN Ombudsman’s Office was established in November 2004.<sup>4</sup> Creating an ombudsman office for ICANN was challenging and was not possible using only current non-technology-assisted practices. The ICANN Ombudsman is an executive ombudsman, serving inside the ICANN organization, but the office receives complaints from stakeholders outside the organization.

Fowlie notes that:

By definition, participants in ICANN are online users, as the role of the organization is to administer the Domain Name System (DNS), which is the addressing backbone of the Internet. Disputes that occur within ICANN may be either in the real world, or online in nature. A unique element of the ICANN Office of the Ombudsman is that it serves, literally, a global community. ICANN stakeholders come from every nation in the world and span all 24 time zones. As the ICANN Office of the Ombudsman is a sole practitioner office, it would be impossible to be operational 24 hours a day to communicate synchronously with

complainants. However, using an online case management and communication system (CMS) complainants, the organization, and the ombudsman may engage in asynchronous communication. Asynchronous communication may be described as parties sharing communications that are not direct and real-time. For example, a complainant in Asia may use the CMS to initiate a complaint while the Ombudsman is sleeping in North America; the Ombudsman may then respond to the complainant after office hours have closed in Asia.

The CMS also allows for the collection and analysis of data for statistical reporting. During the case intake process, information such as the country location and category of complaint are recorded. In closing the complaint, the Ombudsman designates the resolution type, and confirms the complaint category. These statistical records help to identify complaint trends that may assist in providing early intervention on systemic issues. (Fowlie 2012, 51)

The ability to collect and aggregate data, particularly in offices with a large volume of casework, introduces some interesting issues of ethics, including issues related to privacy and “data ownership” (Rainey 2015).

The Army Medical Command’s ombudsman office is a mixed executive/organizational ombudsman office, serving patients, medical staff, patient families, and the public.<sup>5</sup>

In 2007, the Army Medical Command was faced with a set of challenges that called for upgrading and repairing physical plants and for establishing ways to elicit and respond to input from the soldiers, families, and medical staff concerned about the care given to returning veterans. Part of the ultimate solution was the creation of an ombudsman’s office.

On February 18, 2007, the *Washington Post* began publishing a series of articles about the deteriorating conditions at the Walter Reed Army Medical Center in Washington, DC, a federal facility that housed many of the wounded soldiers returning from Iraq and Afghanistan.<sup>6</sup> Consultation between the leaders at MEDCOM and a group of dispute resolution practitioners, working pro bono, led to the creation of an organizational ombudsman office, using standard best practices to serve the MEDCOM community.<sup>7</sup> Ultimately, the office that the MEDCOM community created serves as an example of mainstream current practice. But some of the challenges faced in setting up the office illustrate the need to take advantage of “future possibilities.”

First, the community served by the office is scattered all over the world. This is more and more a feature of organizations that might benefit from the work of an ombudsman’s office. For example, at a recent American Bar Association meeting, the ombudsman from pharmaceutical company Pfizer spoke of the growth of his office, a growth largely driven by the need to serve corporate members in multiple countries.<sup>8</sup> Second, the MEDCOM ombudsman’s office exists in a strongly hierarchical organization in which contacts to report problems or to seek help may be potentially viewed as weaknesses—and could affect the status or career of an individual who may have information that the ombudsman, and the organization, may desperately want to know. In short, it is likely in many organizations that, for reasons of dispersal and culture, members of the community will approach ombudsmen only if there is a way to contact the ombudsman without having to go to a physical office and/or if there is a way to contact the ombudsman that is truly anonymous.

To address these issues, MEDCOM launched its ombudsman office with a very strong web presence, including a portal that allowed contact with the ombudsman's office from anywhere at any time. It also included, as part of the portal, the ability to leave information for the ombudsman anonymously by using a secure message area that the community member could access without entering any demographic or individual data. At its inception, the office had physical locations at ten posts in the United States and Italy. Currently, the office is staffed in thirty locations in the United States and around the world.

The National Mediation Board's ombudsman office, a more traditional organizational ombudsman office, does not serve an all-online community, but it relies on ODR technology similar to that in place at ICANN and MEDCOM to offer access and case management for employees, contractors, and members of the public. Access to the ombudsmen at the NMB may be through in-person contact in the NMB offices in Washington, DC, by phone or e-mail directly to the ombudsmen, or through an online portal that allows contact via text messages that may be left either with or without attribution.

It is essential for NMB employees to be able to contact the NMB remotely. The agency's mediators are on the road about three weeks each month, traveling to the parties with whom the agency works, who are scattered across the United States. The combination of direct attributed contact and anonymous contact offers the public and NMB's employees access twenty-four hours a day, seven days a week. In addition to ease of access, use of the NMB online contact and case-management portal allows mediators to track trends and manage cases.

These three examples of mixed current/future practice offices, and the technical adjuncts they employ—case management, asynchronous communication, and trend identification—all assist and augment the human-based activity in handling complaints.

Fowlie notes, however, that:

The ombudsman process is still driven by the *human-based* activities of investigating; developing questions, options, and recommendations; and communicating findings and reports. (2012, 51)

## TECHNOLOGY-BASED OMBUDSMAN WORK

In addition to relying on technology-assisted ODR, future ombudsman practice is likely to be affected by the rise in "technology-based" solutions for a broad range of dispute resolution endeavors. Early technology-based systems have tended to rely on straightforward decision trees and algorithm-driven systems, such as the blind-bidding system used by Cybersettle for insurance subrogation.<sup>9</sup> Online retailer eBay, an early developer and user of algorithm-driven systems, reportedly handles 60 million disputes per year, using human intervention in only 10 percent of those cases (Rogers 2013). The explosion of e-commerce has created an online community that experiences disputes at a rate at least equal to those who operate in the offline world, with needs that do not parallel those of the traditional commercial enterprise. Those involved in e-commerce have had to develop ODR solutions because traditional face-to-face solutions cannot reach those who have disputes in cyberspace.

Even though current ODR systems are simple, by some standards, the impact can be significant. For example, anecdotal discussion of dispute resolution systems, including ombudsman offices, indicates that many who make contact are not seeking mediation or some other direct intervention. Rather, they are seeking *information*. Using technology-based systems to point individuals toward the body of information they seek fulfills those individuals' needs, and it helps ensure that the practitioner is interacting with those who actually want and need direct contact. It is almost inevitable that most ombudsman offices will employ algorithm-driven, technology-based systems, especially those that serve large organizations with a large number of contacts. It is very likely that the use of much more sophisticated technology-based systems, including systems using the developments emerging from the field of natural-language research, will affect the ways ombudsmen practice in the future.

Very broadly stated, there are two main branches of natural-language research. One branch is concerned with the ability of machines—computers of one kind or another—to “hear” and understand the spoken or written language that human beings use with each other. A practical use of this research is the development of programs such as Dragon, which allows you to “tell” your computer what to do with voice commands.<sup>10</sup> The other branch is concerned with a machine's ability to “read” and understand vast amounts of text or voice communication and analyze the content. This research is being used to develop ways of telling false (positive and negative) reviews from genuine reviews on web commerce sites, and it is being used to determine whether there is anger, agreement, etc., in a given mass of text or voice communication.<sup>11</sup>

In the near future, dispute resolvers, including ombudsmen, could use advanced speech analytics and natural-language research to look for aggressive or attacking language to help them make sense out of a mass of communication from large numbers of individuals. Advanced ODR technology also offers interesting possibilities as an adjunct to coaching. It is also conceivable that a technology-based evaluation tool will be able to scan a proposed message, either written or spoken, to give one party guidance on how that message may be perceived by another party.

As with any application of information and communication technology, there are two parts to the technology employed by ODR systems and ombudsman using ODR: hardware and software. It is important to consider these separately. *Hardware* refers to the machinery ombudsmen or clients use (for example, laptops, tablets, iPads, or smartphones); *software* refers to the computer programming used to conduct the ODR processes. The availability and use of hardware affects the reach and complexity of the program using ODR technology. In North America, for example, computers and tablets traditionally have been the main source of computer-based activity, but mobile devices are increasingly taking over the hardware market. A February 2014 CNN report indicated that:

Americans used smartphone and tablet apps more than PCs to access the Internet last month—the first time that has ever happened.<sup>12</sup>

Europe is also seeing a similar pattern of shifting use from static devices (desktops and laptops) to mobile devices.<sup>13</sup> In Africa and Asia, smartphone use is far more common than use of laptops and desktops.<sup>14</sup> For designers of ODR programs in general, and for ombudsmen in particular, the continuing shift to mobile devices as a way to connect to the Internet—and therefore to services offered by conflict engagement practitioners—means that mobile apps and mobile-friendly methods of data and information entry and access are key to reaching potential clients.

One cannot predict what hardware will be in front of us in five or ten years, except to say that it will likely be cheaper and more powerful than today's. As we will note later, the type of hardware available to the constituents of an ombudsman office—and the access to that hardware—figure into the evaluation of whether to use ODR technology, what it may be used for, and how to integrate it into an ombudsman system.

The software for both static and mobile devices is continually improving, and there is a global tendency for developers to create their own programs or software and make those available to wide audiences. For specific target audiences, developers now commonly use a “hack-a-thon” to develop applications that address specific issues or problems. For example, a recent hack-a-thon in Austin, Texas, took client service issues put forward by Legal Aid and, over a weekend, developed online approaches specifically responding to those issues.<sup>15</sup>

Ten years ago we did not have the term “app” (a small, specialized program downloaded onto mobile devices) in our common language. Today it is almost axiomatic to say “There’s an app for that.” As we will note in detail later, the broad array of software available to the ombudsman makes it possible for ombudsman offices to use ODR software that is self-contained and designed to fulfill all of the functions common to dispute resolution systems, and it is possible to join independently produced apps and programs to target specific functions. For example, the NMB ombudsman office uses a basic website as an entry portal where potential clients can see contact information, privacy and confidentiality statements, and the charter of the ombudsman office; links take the user to a separate secure program where here or she can leave information, either with attribution or anonymously. Neither the website nor the secure communication program was designed with ombudsmen or dispute resolution in mind; however, they easily handle several functions that must be fulfilled by the ombudsman office. Thus, a key issue for ombudsmen who wish to use technology to improve their practice is to decide what kind of ODR software to use. The speed at which both software and supported hardware are changing and improving, along with falling cost factors, will help ombudsmen decide which type of software or platform is most appropriate for their practices.

## Why Should Ombudsmen Embrace ODR Technology?

First, ombudsmen should embrace ODR technology because, as we have noted earlier in this essay, their clients will expect the same level of access to ombudsman services that they have to other services. Although it may be considered a cliché, the age of potential contacts for ombudsman offices seems to make a difference. Younger clients seem to show a higher preference for interacting online with friends, strangers, and service providers than older individuals.<sup>16</sup> Although this too may seem clichéd, these clients and the generations to come after them will be the clients who seek ombudsman services.

Second, ombudsmen should embrace ODR technology because it offers efficiencies in current practice and adds new capabilities without radically changing the nature of the work. The advantages of technology-assisted work should be obvious. Using the three examples from earlier in this article, the ability to make contact regardless of time zone or geography, to accommodate disabilities with remote contact and communication, and to engage in case tracking and management are clearly advantageous to the “traditional” ombudsman office.

Technology-assisted ODR is scalable to the needs, finances, and technical competencies of dispute resolution programs. Web portals and online survey forms can simplify and speed up intake, information gathering, and scheduling. Online discussion and document-sharing apps can enable asynchronous communication for ombudsman offices spread over large geographic areas. Document-sharing and single-text editing programs can make producing settlement agreements easier and more transparent. For each of the functions of the typical ombudsman office, there *is* an app for that. And there is a client base willing and eager to use the app.

On the surface, it would appear that most ombudsman offices would have little need for technology-based ODR. However, in those instances where a significant percentage of contacts are seeking assistance that can be provided through access to information, documents, forms, or other static items, technology-based ODR can play an important role in conflict engagement practice. For example, a recent conflict engagement design project concluded a case-flow analysis with the following note:

If the normal case flow is approximately 200 cases per month, and if 80% of those cases actually now result in direct contact from . . . staff, it is reasonable to assume that . . . staff “touch” at least 160 cases per month. If one further assumes that 50% of those “touched” cases result in a simple furnishing of forms or other very basic information, it is reasonable to assume that the number of cases requiring personal interaction with a . . . staff member could be cut by 50% per month without reducing the number of overall cases and without compromising the nature of the information pushed to the clients.<sup>17</sup>

Neither technology-assisted nor technology-based work takes the place of human contact, but rather uses technology to improve the efficacy of human-based processes.

Third, ombudsmen should embrace ODR technology because it puts some important issues up front. Most ombudsmen are already using some technology in their practice, even if that technology is limited to smartphones, laptop computers, and e-mail. Intentional and thoughtful integration of ODR technology into an ombudsman practice would not just offer the advantages we have outlined, it would also ensure that ombudsmen were carefully considering the impact of the technology—some of which they are already using—on issues such as confidentiality and privacy. Since the advent of desktop computers (before they were connected to the Internet), technology has changed the definition of and availability of records, personal information, and information that both the ombudsman and client would like to keep confidential. Thoughtfully integrating technology into a practice helps the ombudsman and any other dispute resolution professional directly address these issues with clients or parties, and forces the development of policies and procedures to adapt to the digital environment.

## What Should the Ombudsman Consider When Adopting ODR Technology?

Fowlie argues that ombudsmen may wish to consider a number of criteria when planning to implement ODR or when considering the scalability of their ODR programs. The following criteria will inform ombudsmen about the technology they will need to conduct a successful ODR-assisted or ODR-based practice (Fowlie 2012, 54–56):

- Geography
- Legislative requirements
- Case-management users and complaint volume
- Literacy and language
- Internet connectivity
- Time zones
- Service requirements
- Client or audience characteristics
- Synchronous and asynchronous usage

To that previous list we add two factors: (1) perceptions of safety and the need for anonymity, and (2) the sociocultural context.

A powerful incentive to use any conflict engagement program, including ombudsman offices, is the degree to which the potential client feels safe. Safety can be defined in many ways by different client groups, but at base the potential client's perception of the risk involved in contacting the ombudsman will factor into the decision of whether to trust the ombudsman. Some clients will have no second thoughts about walking into a physical office in front of everyone. Some will balk at walking into an office but will use a phone to contact the ombudsman remotely. Some may stay away unless there is a way to offer information anonymously. It is possible, theoretically, to set up "comment boxes" where potential clients can drop information—but even then he or she may fear being seen by others as the "drop" is made. For some potential clients, true anonymity may be the key to initiating contact.

From 2004 through 2010, the University of Massachusetts, Amherst and the National Mediation Board conducted research to see whether the use of process modeling could support conflict-engagement practice.<sup>18</sup> Among the conclusions from the research were that the use of ODR technology did not diminish the participants' feeling that their concerns were "heard" by the third party and the other party in the dispute, and that using an anonymous system increased the amount of input from participants. One good way to craft a truly anonymous portal into an ombudsman office, and to craft an anonymous portal that is familiar to and trusted by an internet-friendly population, is to use ODR technology.

Ombudsmen wishing to implement ODR systems should also consider the general sociocultural context in which they operate. There will be differences in communication and culture between "high-context" and "low-context" societies.<sup>19</sup> This will help inform the ombudsman of the potential for success. The ODR system must be designed to accommodate the cultural requirements of the client group (Fowlie 2012, 56).

For example, several assumptions attend the North American model of mediation that informs much third-party practice, including ombudsman work, for those trained in North America or Europe. There are assumptions about the need for issue identification (which can be seen as attaching blame in some cultures) and assumptions about having the “decision maker” involved in the resolution process (which can be problematic for collectivist cultures). Using ODR technology may in some cases be a better fit for non-Western populations than traditional face-to-face practice.<sup>20</sup>

Ombudsmen might have to modify their practices to accommodate ODR in a number of ways by:

- Creating an appropriate case-management and correspondence system. This could be a purpose-built ODR system or could simply be an existing e-mail program.
- Housing the system on a separate secure server, independent of other applications within the organization, business, or government. Ombudsmen are also increasingly using secure “cloud” environments for conflict engagement work.
- Being proactive in providing a website that promotes the ombudsman function and links to the complaint-intake case-management system. The website should contain a reasonable amount of self-help information to educate, inform, and assist potential clients.
- Having native-language translators available for complainants. Community resources may be available to assist. Translators must be covered by either privacy laws or nondisclosure agreements, to keep the correspondence they review private and confidential.
- Being prepared to develop effectiveness measures for using ODR.
- Developing a sense of self and their own culture, as they work with online documents to conduct dispute resolution. In this case, *culture* refers especially to how people develop a sociocultural context to the manner in which they resolve disputes. A practitioner needs to be particularly aware of his or her own culture, while working with clients or institutions that are different from them in the high-context/low-context scale. In ODR scenarios, ombudsmen must be prepared to allow each correspondent to display his or her own conflict culture, without the ombudsman forcing complainants to adopt the ombudsman’s conflict culture.
- Allotting time and energy to working with complainants who have low general or computer-literacy skills. The same skills used in active listening may be applied to “active writing.”
- Practicing writing skills that will assist in developing a “trust” environment (Ebner 2012, 215–48).
- Being aware that correspondents may tend to stray from core issues and processes with the written word. Much of the process will involve focusing on these core issues and using the many tools in the ombudsman toolbox to develop options and possible outcomes.

## Conclusion

Our basic prediction for the future of ombudsman practice parallels the trend in ADR and conflict engagement in general. As online dispute resolution leader Colin Rule argues:

We now routinely use computers for many of our most intimate communications, largely because smartphones and tablets have become so convenient, portable, and easy to operate. . . . These developments will inevitably affect the practice of dispute resolution. Technology is changing not only the way we communicate; it is altering the way we disagree and the way we resolve our disputes. . . . ODR is no longer a novelty—it is arguably the future of ADR. (Rule 2015)

We echo the prediction about the future of ODR in the field of ADR generally, and specifically suggest that ODR is no longer a novelty in ombudsman work; it arguably will hold a central place in ombudsman practice.

Finally, we suggest that anxiety over the “dehumanization” of the ombudsman practice is misplaced. ODR technology does not destroy the process. As ICT has become more and more a central part of everyone’s private and professional lives, there has been a tendency to see the integration of technology as destroying something rather than building something. We think that the following observation made by Rainie and Wellman is accurate and should give comfort to those who engage in a profession based on people connecting with people.

We wonder about the folks who keep moaning that the internet is killing society. They sound just like those who worried generations ago that TV or automobiles would kill sociability, or sixteenth-century fears that the printing press would lead to information overload. While ‘oy vey-ism’—crying “the sky is falling,” makes for good headlines—it isn’t true. The evidence in our work is that none of these technologies are isolated—or isolating— systems. They are being incorporated into people’s social lives much like their predecessors were. People are not hooked on gadgets—they are hooked on each other. When they go on the internet, they are not isolating themselves. (2012, 330-35)

## NOTES

1. Mary Rowe, "Crystal Ball," *International Ombudsman Association*, March 8, 2011, [http://www.ombudsassociation.org/IOA\\_Main/media/SiteFiles/FINAL-crystal-ball-3-8-2011.pdf](http://www.ombudsassociation.org/IOA_Main/media/SiteFiles/FINAL-crystal-ball-3-8-2011.pdf).
2. For a survey of ODR technology, see Mohamed Wahab, Ethan Katsh, and Daniel Rainey, eds., *Online Dispute Resolution: Theory and Practice*, (The Hague: Eleven International Publications, 2012). The concept of the "fourth party" was developed by Ethan Katsh and Janet Rifkin in *Online Dispute Resolution: Resolving Conflicts in Cyberspace* (San Francisco: Jossey-Bass, 2001).
3. The National Mediation Board is the US federal agency charged with addressing disputes in the airline and railroad industries in the United States. National Mediation Board, accessed May 26, 2015, <http://www.nmb.gov>.
4. "ICANN Ombudsman," Internet Corporation for Assigned Names and Numbers, accessed May 26, 2015, [https://www.icann.org/resources/pages/ombudsman-2012-02-25-en?routing\\_type=path](https://www.icann.org/resources/pages/ombudsman-2012-02-25-en?routing_type=path).
5. US Army Medical Department Ombudsman Program, accessed May 26, 2015, <http://medcomombudsman.amedd.army.mil/>.
6. *Washington Post* coverage of the problems at Walter Reed Medical Center began in February 2007 and continued in a series of special reports. See Dana Priest and Anne Hull, "Soldiers Face Neglect, Frustration at Army's Top Medical Facility," *Washington Post*, February 18, 2007, <http://www.washingtonpost.com/wp-dyn/content/article/2007/02/17/AR2007021701172.html>.
7. Brig. Gen. Michael S. Tucker, the newly appointed deputy commander at Walter Reed, approved and championed the creation of the ombudsman program. Lt. Col. Becky Baker was the officer assigned to create and inaugurate the program. Daniel Rainey, Ethan Katsh, and Harry Hoglander (NMB board member) worked through the offices of U.S. Rep. John Tierney (D-MA), to contact and work with the MEDCOM staff.
8. Timothy Shore (lecture, American Bar Association Labor and Employment Law Midwinter Meeting, New York, NY February 13, 2015).
9. Clive Thompson, "Double Bind: Negotiating on the Internet Gets Lawyers' Egos out of the Way," *Legal Affairs*, May/June 2004, [http://www.legalaffairs.org/issues/May-June-2004/scene\\_thompson\\_mayjun04.msp](http://www.legalaffairs.org/issues/May-June-2004/scene_thompson_mayjun04.msp).
10. "Let Your Voice Do All the Typing," Nuance Communications, Inc., accessed May 26, 2015, <http://www.nuance.com/dragon/index.htm>.
11. David Streitfeld, "In a Race to Out-Rave, 5-Star Web Reviews Go For \$5," *New York Times*, August 19, 2011, [http://www.nytimes.com/2011/08/20/technology/finding-fake-reviews-online.html?\\_r=0](http://www.nytimes.com/2011/08/20/technology/finding-fake-reviews-online.html?_r=0), and Myle Ott, Yejin Choi, Claire Cardle, and Jeffery T. Hancock, "Finding Deceptive Opinion Spam by Any Stretch of the Imagination," Proceedings of the 49th Annual Meeting of the Association of Computational Linguistics (Portland, Oregon: 2011), 309–19, <http://aclweb.org/anthology/P/P11/P11-1032.pdf>.
12. James O'Toole, "Mobile Apps Overtake PC Internet Usage in U.S.," *CNNMoney*, February 28, 2014, <http://money.cnn.com/2014/02/28/technology/mobile/mobile-apps-internet/>.
13. Simon Kemp, "Social, Digital & Mobile in Europe in 2014," We Are Social Ltd., February 5, 2014, <http://wearesocial.net/blog/2014/02/social-digital-mobile-europe-2014/>.
14. Winnie Mitullah, "Africa Connects: Mobile Phones on the Rise in Africa, Internet Use Inching Up," *AllAfrica*, October 16, 2013, <http://allafrica.com/stories/201310160700.html>.

15. Tech for Justice home page, accessed May 26, 2015, <http://www.techforjustice.org/>.
16. Stacy E. Thayer and Sukanya Ray, *CyberPsychology & Behavior* 9 (August 2006): 432–40, doi:10.1089/cpb.2006.9.432.
17. Daniel Rainey, Julia Morelli, Shawn Billingly, and Peter Turner, *4PS Initial Report*, October 2014 (client name withheld for purposes of privacy and confidentiality).
18. The research was carried out under and was supported by funds from the National Science Foundation under grant no. IIS-0429297.
19. “The expressions ‘high context’ and ‘low context’ are labels denoting inherent cultural differences between societies. High-context and low-context communication refers to how much speakers rely on things other than words to convey meaning. Hall states that in communication, individuals face many more sensory cues than they are able to fully process. In each culture, members have been supplied with specific ‘filters’ that allow them to focus only on what society has deemed important. In general, cultures that favor low-context communication will pay more attention to the literal meanings of words than to the context surrounding them.” M. Q. Jeffrey, “High Context vs. Low Context Communication,” September 22, 2007, <http://hubpages.com/hub/High-Context-vs-Low-Context-Communication>.
20. See Daniel Rainey, “ODR and Culture,” in *Online Dispute Resolution: Theory and Practice*, edited by Mohamed Abdel Wahab, Ethan Katsh, and Daniel Rainey, 197–213, The Hague: Eleven International Publications, 2012, and Daniel Rainey and Alma Abdul-Hadi Jadallah, “The Culture in the Code.” Paper presented at the Fourth International ODR Forum, Cairo, Egypt, 2007. [http://www.mediate.com/articles/culture\\_in\\_code.cfm](http://www.mediate.com/articles/culture_in_code.cfm).

## REFERENCES

- Ebner, Noam. 2012. “ODR and Interpersonal Trust.” In *Online Dispute Resolution: Theory and Practice*, edited by Mohamed Abdel Wahab, Ethan Katsh, and Daniel Rainey, The Hague: Eleven International Publications.
- Fowlie, Frank. 2012. “Online Dispute Resolution and Ombudsmanship.” In *Online Dispute Resolution: Theory and Practice*, edited by Mohamed Abdel Wahab, Ethan Katsh, and Daniel Rainey, The Hague: Eleven International Publications.
2015. “Glimmers on the Horizon: Unique Ethical Issues Created by ODR.” *ABA Dispute Resolution Magazine* 21 (2): 20–23.
- Rainie, Lee and Wellman, Barry, *Networked: The New Social Operating System* (Cambridge, MA: The MIT Press, 2012), Kindle edition, Kindle locations 330–35.
- Rainey, Daniel. 2014. “Third Party Ethics in the Age of the Fourth Party.” *International Journal of Online Dispute Resolution* 1 (1): 37–56.
- Rogers, Vikki. 2013. “Managing Disputes in the Online Global Marketplace.” *ABA Dispute Resolution Magazine* (Spring 2013): page numbers.
- Rule, Colin. 2015. “Technology and the Future of Dispute Resolution.” *ABA Dispute Resolution Magazine* 21 (2): 4–5.