Crowdsourcing Dispute Resolution Over Mobile Devices

By Colin Rule and Chittu Nagarajan

Summary: *In this chapter, Colin Rule and Chittu Nagarajan – two experts in Online Dispute Resolution who work at eBay.com and PayPal.com – discuss how mobile technology is becoming the dominant channel for accessing global communications networks, and how Online Dispute Resolution (ODR) is riding that wave of innovation to access new types of disputes, becoming more relevant and more effective. This chapter also analyzes how ODR systems can leverage "crowd sourced" approaches to deliver appropriate outcomes (drawing on extensive experience with eBay's Community Court) and how mobile computing models can make crowd sourcing more flexible and satisfying for participants, extending the reach of ODR into new areas of conflict that were previously inaccessible to technology-based dispute resolution systems.*

It has become clear in the last few years that the future of the internet is mobile devices. While that seems obvious to many now, going back just five years that truth was much less obvious. A half decade ago there was quite a bit of debate about where information and communications technology (ICT) was going. We recall many long discussions with our good friend Sanjana Hattotuwa (a 2010 TEDGlobal fellow and Special Advisor to the ICT4Peace Foundation) in which he insisted the future of the internet was a mobile one. We (along with many others) believed that the desktop computer-centric model for the web – with its large screens, big keyboards, and local storage – was not going anywhere, as it was a richer and more satisfying way to plug into the global network. It would remain, we asserted, the preferred access channel, with mobile as a second choice. Sanjana responded that the high cost of such devices made them impractical for many in the developing world, and that because the vast majority of new users of ICT resided there, new tools would migrate in that direction. We now know that Sanjana was right, and we were wrong. What is also obvious is that mobile is not only the future of the internet in the developing world, but increasingly it is apparent that mobile is the future of the internet in the developed world as well.

In retrospect it is obvious why we were mistaken about how things would develop. Just a few years ago pretty much everyone carried cell phones that only made voice calls and handled basic text messages. It was hard to imagine users giving up their large colorful screens and speedy connections for devices with tiny screens only capable of displaying a hundred characters in black-on-gray. Moving forward to the current day, what we now call "mobile phones" are really mini-computers, equipped with powerful processors and rich graphics capabilities. They can surf the web, play games, power presentations, edit spreadsheets, and deliver rich media experiences, just like the desktops of old. The primacy of the computer-based internet – long dominated by Microsoft Windows and Intel Processors – is being seriously challenged by devices like Apple's iPhone and iPad, Google's Android, and other advanced operating systems like Symbian. In Silicon Valley many startups are devoting their effort to developing tools for these new mobile operating systems instead of traditional environments like web pages and desktops, which

are considered old hat. In fact, Microsoft is said to be developing full versions of their renowned Office suite for mobile devices, available for free in some cases, most likely in response to the realization that most people soon won't carry laptops around with them wherever they go; they'll instead just carry full-function mobile devices that will access all their data on the internet (sometimes called "the cloud") and plug the devices into docking stations when they need larger screens and keyboards.

Sales figures for traditional desktop computers have been falling steadily, with purchasers migrating to laptops and even smaller sub-notebooks, which now have processors powerful enough to handle the majority of common computing tasks. Now it is becoming increasingly clear that even the laptop model will eventually succumb to the expanding power of mobile devices, and the old clamshell design will one day go the way of the floppy disk and the Polaroid camera. This is a powerful example of the inevitable power of Joseph Schumpeter's Creative Destruction, and as with other periods of rapid change, it opens up many interesting opportunities for creativity and innovation.

The mobile future and the developing world

One of the main forces driving the move to mobile, as Sanjana originally observed, is the emergence of the developing world onto global information networks. When the internet began to expand in earnest in the mid-1990s many observers noted that developing economies would gain disproportionately from the opportunities available online, because information and connection to the wider world had previously been so difficult and expensive to achieve in developing nations. What's more, many speculated that developing economies would be able to leverage the benefits of these new communications technologies at a much cheaper cost than the developed world because they could leapfrog costly intermediary steps and move right to the most modern systems. For instance, many developed nations paid enormous amounts of money over decades to install costly wired data transmission systems, from telephone poles and suspended wires to buried fiber-optic cables. Now, however, wireless transmission technologies have become speedy and sophisticated enough to support most data transmission tasks without requiring such costly infrastructure investments. And because these wireless technologies are upgraded so frequently in the developed world, second hand/second generation systems are often available at very modest prices. Mobile users in Europe, Asia and the United States demand the fastest speeds possible, so perfectly capable systems are being dismantled and made available to markets that might not have such discriminating users. This market dynamic works to the advantage of developing economies, because they put sophisticated and proven systems within economic reach.

What's more, mobile technology has proven itself to be a better fit than the old desktop model in much of the developing world. Requiring expensive computers at every access point never fit well with the realities of life in many lesser developed regions. The cost associated with purchasing a desktop or laptop computer was often prohibitive, and the lack of portability limited the utility of such an information appliance for people that were on the move. What's more, when one broke it was often nearly impossible to get replacement parts. The cell phone/mobile device model for internet access has

demonstrated itself over time to be a much more appropriate fit with the demands of many developing country users. The portability of the devices means that the end user can remain in constant contact, no matter where they may go over the course of a day. The modest cost for a basic cell phone, and the disposability of the device (easily replaced with a new model just by swapping over a SIM card) make the economic barrier to access much easier to overcome, and enable new technological innovations to spread rapidly. Competition has also brought the price of data and voice services down to a manageable level. Just a few years ago Nicholas Negroponte's One Laptop Per Child initiative was promoting itself as the best way to bring the developing world into the information age. Now the increasing sophistication and penetration of mobile devices is making that initiative seem unworkable, overly complex, and out of date.

Another reason for the rapid adoption of mobile technology in the developing world is a more appropriate cultural fit. Traditional web-surfing and asynchronous email-based online interaction (the traditional desktop model) creates the impression of accessing the internet as a solo activity, while voice-based and real time text message based interaction (common over cell phones) is much more of a social activity. One technology turns the user's focus inward, the other turns the user's focus outward. These interaction types match up neatly to the low-context cultural predispositions of many individualistic developed countries, and the high context cultural predispositions of community-focused developing countries. In addition, for non-literate users, voice communication (the original raison d'être for cell phones) is much more effective and efficient than text-based communication. While full desktops and powerful laptops enable full screen interaction with rich media, many developing world users have found basic voice and data (e.g. short message) services adequate to meet most of their needs, and entrepreneurs have flourished in creating innovative services based only on the limited communications channels of mobile devices. That said, mobile devices have been improving rapidly over the past few years, and the sophisticated features of phones like the iPhone and the Droid are increasingly becoming available on cheaper phones that might be more economically realistic for developing world consumers. It seems, based on past experience, that in only a few months enterprising generic phone manufacturers, many of whom are in the developing world, can copy features from more expensive phones, making them available to larger pools of potential users. As such, the potential of mobile devices has only begun to be tapped.

The expansion of mobile and the practice of ODR

The field of Online Dispute Resolution has always been driven by technology. As innovation has pushed online interaction from the early days of green screens and 300 baud modems into the high-speed access and HD video of today, ODR has continually evolved to take advantage of the new approaches and improve its efficacy. ODR service providers have constantly experimented with the full range of technology tools to see how they can compliment ODR practice, from web conferencing and shared whiteboard systems to mind mapping platforms and social networking.

In the early days of ODR the presumption was (much like the reflexive focus on desktop computer-based models for accessing the internet) that face-to-face interaction was the optimal form of communication, so the arc of technological innovation in ODR would track toward replicating in-person communication. As a result there was a relentless emphasis on videoconferencing and audioconferencing in the early years, as well as synchronous text-based interactions like chat. However, ODR practitioners quickly discovered that the state of videoconferencing technology in those days was so primitive that it was not an effective channel for disputants to communicate. Also, synchronous text-based interaction proved largely ineffective for conflict resolution, because the nature of the communications channel created an incentive to post short messages that often escalated the conflict at hand. Negotiations often turned into speed typing competitions, as the party that got out the most words in the shortest period of time usually had the upper hand in the exchange.

Over time ODR practitioners learned the benefit of asynchronous, text-based online exchanges. These types of communication urged participants to be reflective, and they enabled disputants to consider their comments before posting. They also opened up the possibility of research and consultation during a dispute resolution process. Both participants could engage with the process when it was convenient for them to do so, and that turned out to enable a more deliberate interaction that was conducive to conflict resolution. Asynchronous communication was impractical if not impossible to sustain in a face-to-face interaction; the very nature of online communication created the possibility for asynchronous conflict resolution to occur. If ODR experiments had hewed unwaveringly to the arc of innovation predicted at the inception of the field – namely, replicating face-to-face interactions – the new capabilities of online communications channels might have been overlooked.

Such is the case with mobile technologies as well. The migration of ODR to mobile devices opens up enormous opportunities for innovation. Predictions about where the introduction of new mobile technologies will lead ODR may overlook some of the unique capabilities introduced by the new tools and platforms. If we are to effectively internalize the lessons from the first phase of ODR's development we should keep our minds open to new approaches made possible by the expanding capability of mobile devices as opposed to trying to fit them into the communications models we've used up to this point in defining ODR.

A primary example is synchronous audio and video conferencing. As discussed previously, many ODR providers have steered clear of a heavy reliance on these approaches, not only due to the inadequacy of the technology in delivering a satisfying experience for participants, but also due to the prohibitive cost. Mobile devices, however, were originally optimized around synchronous voice communication, so the user experience is quite streamlined and comfortable for users. Many mobile plans have also made voice based communication very cheap, and have introduced features like conference calling that was previously quite expensive. In addition, the proliferation of faster data plans and more capable cameras in mobile devices is opening up videoconferencing to more users. Indeed, the recent launch of Apple's iPhone 4

celebrated "FaceTime," a one-tap videoconferencing application available for free to all iPhone 4 users. The experience of seeing the other party's face on a small device held in your hand is much more intimate and satisfying than having to sit rigidly in front of a computer monitor, aligned with a webcam generating grainy, jerky video. Perhaps mobile devices will reverse the equation again and make synchronous video communication more effective than text-based asynchronous communication in some situations.

Another such innovation area is access to disputes. In face-to-face dispute resolution, third parties are often asked to engage a dispute long after it has escalated and become intractable. Many mediators must then labor mightily with the parties to de-escalate the matter and to undo much of the mistrust that has grown during the escalation. ODR was able to leverage the intimacy of technology to access disputes at a much earlier stage. In the eBay and PayPal context, the ODR systems we designed were available to buyers at the first inkling that a problem might exist. That enabled the ODR process to help the buyer diagnose the problem they were experiencing, and begin resolving it before escalation with the seller could take place. It will be interesting to see how mobile technologies, which are even more intimately integrated into the lives of their users, will similarly be able to engage disputes at an early stage of their development. In many cases, this intimacy enables issues to be resolved before they even become disputes. For instance, if one party is frustrated with another party because they did not deliver a package to a hotel for an important meeting, a quick check via mobile device of the shipper's website may indicate that the package was already delivered and received by a hotel employee, who placed it safely in a storage closet. Without the key piece of information, a dispute might have arisen and escalated between the parties, with mutual accusations of responsibility back and forth. But the availability of information over the mobile device resolved the issue even before the aggrieved party communicated their concern to the respondent. In fact, the easy availability of information over mobile devices has probably resolved more disputes than all the online mediators in the world combined.

It is not difficult to imagine other ways that mobile technology could help to revolutionize ODR. For instance, mobile devices make the coordination of large groups much easier – witness mobile phenomena like flash mobs, or hot online services like Foursquare. Conflict resolution professionals working with large groups could leverage mobile devices to great effect. Or mobile devices might work for convening purposes, helping to ensure participants are who they say they are, or helping to find times when all the participants can get together on short notice. They also may help to engage non-present but involved parties in resolution negotiations, ensuring their interests are observed. Also, mobile devices can help to engage outside experts in dispute resolution processes, perhaps even those far enough removed from the dispute to be considered credibly impartial by the disputants. These are just some ideas about how mobile technology may help to transform the practice of ODR, but they give an indication of how much promise these new tools represent.

The power of "crowd sourcing"

There is a well known option in the global game show *Who Wants to be a Millionaire* when the contestant in the hot seat comes up blank as to which answer to pick, so she turns to her palette of "lifelines" to get a little help. One lifeline enables the contestant to consult an expert to ask for the right answer, and another lifeline enables the contestant to ask the audience for help. We might expect the expert to be the better bet, but in his book *The Wisdom of Crowds: Why the Many Are Smarter Than the Few and How Collective Wisdom Shapes Business, Economies, Societies and Nations*, James Surowiecki reported that the Experts consulted on the show got the answer right 65 percent of the time, but the audiences picked the right answer 91 percent of the time. Surowiecki labels this phenomenon "the wisdom of crowds" (Surowiecki, 2004).

When viewed from a particular angle, the internet resembles one big "Ask the Audience" lifeline. We leverage the wisdom of crowds every time we do a Google search, look up a factoid on Wikipedia, or evaluate a hotel on TripAdvisor. A big part of the meaning of "web 2.0" is user generated content (UGC); website administrators know it is a lot easier and more profitable to set the general parameters for your platform and enable the wider internet to evaluate everything submitted, pushing the most desirable items to the top.

In techie parlance, this dynamic has come to be called "crowd sourcing," or using the wisdom of crowds to find the answers to very hard questions. At its essence, crowd sourcing can be viewed as an evolution of democracy; as every online user votes with their clicks, technology can aggregate the information to determine which elements win. The dynamic works the same in offline markets (e.g. the most popular newspaper gets the most advertisers, the most creative TV shows get the most viewers), but the technology and scale of the internet takes everything to the next level.

Both eBay and PayPal have long wrestled with the challenges presented by enormous dispute volumes. Our experience with online dispute resolution tools and techniques, combined with the volume of cases that come through the system, has enabled the construction of advanced tools that resolve the vast majority of cases without requiring the involvement of a human mediator or arbitrator. But the number of cases that do require an eventual determination is still significant, and some of these cases involve issues that are extremely difficult for eBay to effectively decide. As eBay's ODR team brainstormed possible alternatives for providing that determination in a more scalable and effective way, it considered crowd sourcing. From that realization, the eBay Community Court (ebaycourt.com) was born in December 2008.

How eBay's Community Court Works

The process is simple. If a seller on eBay India feels that he has received a bad review from one of his buyers that he did not deserve, he can log into the Community Court and explain why. Once inside the platform, the seller has the ability to upload images, text or whatever else he thinks best illuminates his perspective. Once he is finished making his case, the Community Court automatically contacts the buyer and provides her with the same opportunity. The buyer has the benefit of seeing the seller's submissions, and the

buyer can offer whatever text or images the buyer feels are relevant to backing up the feedback she left. Once the buyer's submission is complete, the seller has one final opportunity to rebut the buyer's points, in text only.

Once the submissions from the buyer and seller are complete, the Community Court puts the case in front of a randomly selected panel of jurors. Jurors in the Community Court are eBay members who have previously applied to be jurors and met the fairly stringent eligibility criteria (e.g. a significant period of time on the eBay site, a positive feedback rating, and ample transactions as either a buyer or a seller). Each juror reviews the information submitted by the seller and buyer in its entirety before making their decision. The juror is merely asked if he or she agrees with the buyer, with the seller, or if they feel they cannot make the decision.

Each case in the eBay India Community Court is heard by 21 jurors (though it could easily be more if the community were larger). If more than half of those jurors agree with the seller, then the case is decided in the seller's favor and the feedback is removed from eBay's system. If more than half of the jurors disagree with the seller, then the feedback stands as left by the buyer.

Lessons Learned

The years of experience eBay has had administering the Community Court has enabled the team to learn about the strengths and weaknesses of the model and to refine it accordingly. We also have been fortunate to have support from several academic institutions in analyzing the performance of the platform in depth. In conjunction with our partners, we have conducted surveys with every buyer, seller, and juror who had used the platform by a specific date, as well as surveys of eBay users outside of India who were familiar with the concept but had never used the platform themselves.

This research has enabled us to evolve our approach over time. One element we learned to handle differently is case assignment. When a new filing is received in the Community Court, the system does not reach out to 21 jurors to inform them that they have been assigned to a case. Instead, the Community Court assigns cases out to jurors on a first-come, first-served basis. The jurors only have access to the case for a limited period of time, and they cannot log out of the platform and come back to that particular case – that constraint ensures that jurors will not contact buyers or the sellers to peddle influence or gather inappropriate information. The platform also makes sure that the jurors have never transacted with either the buyer or seller in the case in question.

We also have developed several models to monitor juror verdicts and identify troublesome patterns. We actively look to see how many times jurors are in the minority on a decision, how long they review the information submitted by the buyer and seller, and the rationale they provide to back up their decisions. If a juror displays some concerning patterns, we may refer them cases that have already reached an outcome (for example, more than half have already voted one way or another, so the resolution is already known) as a test, or we may stop referring them cases altogether.

eBay is not the only organization that has come to acknowledge the promise of crowd sourcing dispute resolution. An Israeli start-up site, AllRise.com, has pioneered similar approaches. Even the American daytime television program *The People's Court* has put together a website, peoplescourtraw.com, that leverages similar techniques to resolve a wide variety of disputes using video testimonials. In July 2009, the Berkman Center at Harvard Law School hosted a one-day symposium on crowd sourcing ODR, and new experiments using the technology seem to be cropping up in the eDemocracy and legal spheres on a regular basis.

Applying mobile technologies to crowd sourced ODR

It's not hard to see how mobile technologies could expand the reach and efficacy of a crowd sourced ODR platform like the Community Court. For example, mobile devices are quite common in India, and early in the life of the platform we received requests to send out notifications to users via their mobile devices. We can notify buyers when a case is filed regarding one of their feedbacks, and we can notify jurors when there are new cases awaiting their input. Using short text messages in this way can keep users engaged with the court and significantly improve time to resolution. But there's no reason why the platform could not be coded to enable jurors to evaluate cases directly on their cell phones. Disputants could make their cases verbally, and the audio could be shared with the jurors as evidence prior to them making their decision. Photos can be snapped on cell phones and uploaded to the platform as evidence. Mobile devices can also enable many more individuals to serve as jurors, because the technology requirements to participate would be so much lower. This might enable the creation of much larger juror pools, which would aid in identifying subject matter experts and minimize the challenges associated with conflict of interest.

In fact, the ever expanding reach of mobile devices would make a mobile-enabled Community Court useful in many other types of disputes. For example, it is not hard to imagine the Community Court handling face-to-face low value civil disputes. Imagine if a district court could have its own Community Court hotline, where citizens could meet their jury duty obligations online by listening to and voting on cases and disputants could file their small claims cases verbally over the phone. There are definitely advantages to working out disputes in person, but for low-dollar-value cases it is not difficult to envision the vast majority of citizens preferring a hotline-based channel due to cost and convenience. In many areas of the world civil court backlogs stretch into years, so a system such as this one might be far more preferable than waiting in an interminable case queue for justice that might never come.

In fact, we have held discussions with leaders at the National Defense University in Washington, DC regarding an idea called the M-Jirga, which is a cell phone-only implementation of the Community Court intended for Afghanistan. In the next section, we will discuss our proposed design for the system, and explain how mobile technology is essential to making it work.

Case Study: the M-Jirga

In the Summer of 2009 we presented the Community Court platform at a meeting in Washington, DC convened by the United States Institute for Peace. We discussed the progress we had made in designing the system, but we did not propose any specific application of the system outside of the eBay context. In the wake of that meeting, however, we were contacted by a team working in Afghanistan on ways to use mobile technology to help with the development of civil institutions. The United States had invested heavily in mobile technology for Afghanistan, and cell phones were becoming quite common in several regions of the country. The US military had erected cell phone towers in two towns and a neighboring refugee camp and provided free cell phones in the area as part of an experiment along these lines. There were already efforts underway to provide free services over the cell phones being distributed by the US government, such as health and maternal counseling and market price updates (so that farmers would know if that particular day was a good day to bring in their crops to sell in the market). One big challenge in Afghanistan is reinforcing the Rule of Law, and there had been some discussion about whether the cell phone network could help with that effort. From that brief introduction the idea for the M-Jirga was born.

In learning about Afghanistan we discovered that those who are working to preserve legal authority are confronted by a wide variety of challenges, including inefficient judicial mechanisms, a lack of transparency and trust, endemic corruption, and persistent lawlessness. Each of these elements undermine the confidence the average citizen has in the central government, and by extension, the courts. As the Center for American Progress put it, "Afghans will only view their government as legitimate if it provides rule of law. The lawlessness and corruption of the Afghan government are often cited by Afghans as reasons for their disillusionment with the Afghan government and their growing sympathy for the Taliban. To deal with this problem, the United States should assist in the creation and support of a judicial sector strategy for addressing the absence of the rule of law" (CAP, 2008).

To adequately address these challenges, it's clear that solutions need to straddle several significant gaps between Afghan cultural institutions: the gaps between informal and formal justice systems, cultural gaps between urban and rural populations, tribal animosities, and differing religious requirements. USAID has begun a Rule of Law project in Afghanistan that aims to develop the justice sector, increase access, and respond to increasing public demand, but the challenge seems overwhelming. Afghanistan needs a high quality judicial system, staffed with educated legal professionals, in order to build public confidence. But it is incredibly difficult to achieve that goal in the middle of an active war zone. Nonetheless, they are training new judicial candidates, opening legal aid offices, and educating the public. (USAID, 2009)

Part of the challenge has simply to do with geography. Afghanistan is very difficult to navigate, so it's difficult for legal professionals to even reach many areas. USAID has shared stories of judges walking eight days just to attend a single training in the capital. Judicial systems that require the presence of individuals in a particular courtroom may be

self-defeating, because the parties simply cannot make it to the location in question. Even worse, geographic proximity may advantage individuals closer to urban centers, which plays into the mistrust between the urban and regional populations. It's not hard to see how mobile technology might be able to effectively address some of these geographic constraints by enabling remote participation.

Another struggle in Afghanistan is the tension between formal and informal justice systems. USAID has focused their efforts primarily on the formal justice system, which implements statutory law and sometimes Sharia law across several levels of courts. However, traditionally most justice in Afghanistan has been delivered through informal channels. According to the website of the Attorney General of Afghanistan, an informal mechanism called a Jirga (the term jirgah is commonly used among Pashtoons but the terms shura and marka are used among other ethnic groups, such as the Tajiks, Hazras and Uzbeks) settles more than 80% of civil cases. Afghans often prefer this informal justice system due to a lack of confidence in the formal judicial channels as well as the physical absence of courts and their low capacity across the country. So perhaps there is potential in applying new technologies to these information justice systems.

How Jirgas work

According to the Attorney General of Afghanistan's website, a Jirga is at its essence a group of people, mostly local and tribal elders, who come together to discuss a specific problem affecting individuals, families or tribes, and to propose a solution.

Jirgas enforce what is called *customary law*, which is essentially a compilation of indigenous tribal codes and local customs. Most Afghanistanis, regardless of their political and social background, apply this customary law as a means of dispute resolution and collective reconciliation.

To convene a jirga, one or both of the parties to a dispute formally invite tribal elders to attend. Usually food is provided for the elders who attend (e.g. a cow or a sheep is killed for the occasion). The size of the jirga panel varies depending on the nature and seriousness of the issue. If six or more men are asked to mediate a dispute between individuals in different villages or tribes, half of the panel will be drawn from one side and half from the other in order to keep balance between the parties.

To solve a dispute, the men on the jirga panel (it is almost always men) gather in a mosque or under a tree and discuss the situation in depth. During the proceedings, all members of the panel have equal say, but in practice everyone pretty much accepts the solution chosen by the most influential and respected members. Every member is entitled to state his point of view and make suggestions. It is considered very important for the atmosphere of the discussion to remain calm and respectful.

The discussion continues until a final decision is reached. The decision or decisions reached by the jirga panelists are communicated back to the disputants orally, as they

have been for centuries. What that means, however, is that there is no written record of the outcome should any problems arise later.

Advantages and disadvantages of Jirgas

Even outside of the geographic challenges, it's clear to see why many disputants in Afghanistan decide to opt for a resolution through an informal process as opposed to a formal channel. For one, an informal process is much cheaper. There's no need to travel or get a lawyer, as the panelists work for free (or for the price of a single cow or goat). Also, the process is much shorter, which means justice can be delivered much more quickly than through formal channels. The participants also are more comfortable working with people from their local area, tribe, and culture, because there are more commonalities in expectation and language. Finally, jirgas are based on a restorative model, not a retributive one, so there's no question of punishment or jail time in the outcomes rendered.

It's also clear that these informal justice channels have significant disadvantages as well. First of all, there's very little diversity. Jirga panelists are almost always male and they probably represent a particular cultural and judicial perspective, one that may advantage some individuals over others. This may lead to decisions that violate human rights, particularly women's rights, such as forbidding a divorce or forcing women into compulsory marriages. Many of the most horrific stories about abusive judicial decisions in Afghanistan come out of informal justice processes such as these. Also, because there is no review or precedent, decisions can be horribly unfair, and the parties in question have no right of appeal, nor any means to get broader awareness of the injustice. Decisions can be arbitrary and abusive and victims have little choice but to abide by them.

The m-Jirga

As we learned more about how jirgas operate we saw similarities between the jirga and the design of the Community Court. Both rely on panels of uninvolved, trusted intermediaries to hear both sides and render a decision. Both provide the disputants in the case a full opportunity to state their case and provide whatever evidence they think is appropriate. Why couldn't a traditional justice process take place over technology? We also thought that integrating technology into the jirga process would leverage many of the advantages of informal justice while opening opportunities to combat some of the potential disadvantages.

Our proposal (see Fig. A) describes a cell phone based implementation of the Community Court that would require no computers to operate. Disputants could call a special number on their mobile phone to begin the process. The hotline number could be advertised around the country on posters or leaflets, or provided at the USAID hosted legal centers. Facilitators will communicate with the disputants and enable them to verbally record their cases. Both sides to the dispute will be able to hear and respond to the statements from the other side. Once both parties are satisfied with the case they have put together, a panel of elders will then be convened by phone. The elders will hear the statements from

both sides and then be able to weigh in with their decision, and to record their rationale. The final decision will then be shared with the disputants, and each disputant will be able to review the recorded statements of the elders.

m-Jirga services will be available in every local dialect, and the elders assigned will be local to the parties involved in the dispute and fluent in the language utilized. Basic mediation services will also be available to the parties via mobile phone in advance of the m-Jirga being convened, should the parties be willing to try that resolution path in advance of having a decision rendered for them. All participants will be polled via mobile phone to determine their satisfaction with the process, and the system will be refined and redefined accordingly.

A common dispute type in Afghanistan is a dispute over the ownership of a plot of land. There is no official land registry in Afghanistan, so no written records are kept. If a dispute over land is resolve by a jirga, the decision rendered is not stored anywhere, so if the dispute comes up again in the future there's no definitive way to refer back to the previously rendered decision. A technology based system could keep records of the decisions rendered in the various land disputes. When an individual calls into the hotline, past decisions could be made available based on his or her cell number (or geographic location), and the final outcome could be looked up. Also, case outcomes could be tracked in a central database and monitored for patterns or inconsistencies. Additionally, panelists made available to decide m-Jirga cases can be balanced for tribal affiliation, legal education, judicial reputation, or other factors to ensure quality outcomes. Panelists who consistently deliver bad or ill considered decisions can be edged out of the system or assigned fewer cases over time.

Now please note, we are the first to admit that our lack of on-the-ground cultural understanding in Afghanistan is a major obstacle to designing any workable system there. We admit that ideas such as this will never succeed unless they are grounded in an intimate understanding of the culture in which they are intended to take root. This concept was based on a few initial conversations with individuals who had extensive experience in Afghanistan, but it would undoubtedly require many more rounds of revision and refinement in order to be successful. That said, it serves as an interesting proposal to study the possible synergies between crowd sourced ODR and mobile technologies. In addition, there is no reason to think a similar approach would not be equally valuable in developing countries around the world. Even developed counties might welcome a mobile phone based justice system to handle cases that are ill served by existing formal judicial channels.

Conclusion

Online Dispute Resolution is a vibrant area within the field of dispute resolution. The need for quality dispute resolution is overwhelming and the opportunity for creativity is empowering. The flowering of mobile tools and technologies open the door to many exciting new approaches for resolving disputes. Crowd sourcing is just one potential approach that might benefit from the capabilities of mobile devices. The examples in this

paper are just a few possible scenarios for how mobile information and communications tools can release us from prior constraints around how things must be done. We remain excited to explore these possibilities, and through their implementation and refinement drive toward a future with more access to justice and more fair resolutions for more people than was ever possible before.

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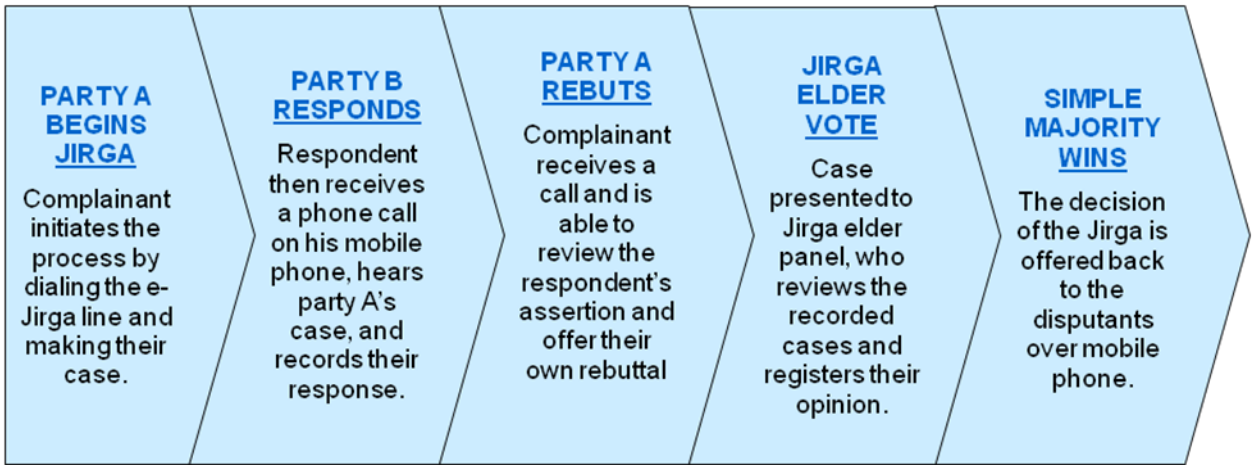
Fig. A


PARTY A BEGINS JIRGA
Complainant initiates the process by dialing the e-Jirga line and making their case.
PARTY B RESPONDS
Respondent then receives a phone call on his mobile phone, hears party A's case, and records their response.
PARTY A REBUTS
Complainant receives a call and is able to review the respondent's assertion and offer their own rebuttal
JIRGA ELDER VOTE
Case presented to Jirga elder panel, who reviews the recorded cases and registers their opinion.
SIMPLE MAJORITY WINS
The decision of the Jirga is offered back to the disputants over mobile phone.