Online Dispute Resolution in a Technology-oriented Healthcare World

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DISCUSSION DRAFT W/O FOOTNOTES

Electronic Health Records (EHRs)[1] and Online Dispute Resolution (ODR)[2]: Some Impressions and Observations

By

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The following was written in the hope of giving some perspective to those at the workshop who may not themselves have an electronic medical record. I have no doubt that our participants from the health care community will find various errors and shortcomings. Participants from computer science will probably find other mistakes. My only goal has been to put forward a few ideas ahead of time and identify some issues we might wish to consider at the workshop.

The idea for this workshop occurred to me almost two years ago when I looked at my own electronic health record. It was the first time I had ever been able to examine any medical record of mine, paper or electronic. The only times I had even been close to my paper medical file was when I went to the doctor but even at those times I never had an opportunity to look inside. Actually, I cannot remember visiting a single doctor's office that felt comfortable leaving the file alone in the room with me. Whatever legal right I might have to examine the file, and however willing my doctor would probably have been if I had asked to look at the file,

[1] There is a distinction between an Electronic Medical Record (EMR) and an Electronic Health Record (HER) that is inevitably confusing to those who have no experience with health information technology. A Google search for "difference between EMR and EHR" will turn up many sources that explain in detail the difference between the two. It took me some time to understand that what I was describing in this paper was an EHR and not an EMR. This may need to be a topic of conversation at the workshop but my conception of an EMR is that it is the record created by a single doctor's office or organization. The EHR links together and contains data from multiple EMRs. To add another acronym and a little more confusion, there are also Personal Health Records (PHRs). These should be a little easier to understand because there are examples of PHRs that have been created by both Microsoft and Google and can be used for free by anyone. A PHRs main quality is that it is managed by individuals and data is entered by individuals. In addition, it can link to and contain data from other EMRs and EHRs, a capability at the heart of a dispute referred to later in this paper.

[2] The dispute resolution field has its own acronyms, namely ADR (alternative dispute resolution) and ODR (online dispute resolution). ADR refers to alternatives to litigation, the most common examples being mediation, arbitration and negotiation. ODR refers to the use of technology to aid in the resolution of disputes. The field of ODR developed out of a need to resolve problems that arose out of online activities and for which traditional face to face processes were not possible. Currently, ODR refers to the use of technology in any dispute where the information processing and communications capabilities of computers can assist in resolution. In some instances, the whole dispute resolution process will be online. In other situations, the technology will be a kind of "fourth party," aiding the third party neutral in the dispute resolution process.

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the implicit but very clear message was that the doctor was in control of access to it. He and his staff were the gatekeepers controlling access to the manila folder.

The practice of all of my doctors to keep my medical record out of reach never bothered me enough to ask the doctor about it. It seemed an odd but generally irrelevant practice. A copy of lab results was always sent to me, I kept some record of blood pressure over time, I had good insurance and I generally trusted the doctor. Thus, while I probably would have found it more interesting to look through my medical file while waiting for the doctor instead of playing with my PDA or reading whatever several month old magazine had been left in the examining room, I never felt I needed to look at the record. As a result, I never did.

When I decided to look at my electronic record, it was mostly out of curiosity. Whatever barriers had discouraged my looking at the paper file had disappeared. My primary care doctor belonged to a hospital system with electronic records and literature in his office encouraged patients, somewhat ironically I thought given how they dealt with paper records, to sign up and use it. So I did.

Some Impressions

Looking at the electronic record was more interesting than I thought it would be. It immediately became clear that it was not what many lay people assume an EHR is, namely a scanned duplicate of the doctor's paper record. It was also clear that while EHRs may be the future, my EHR was only the beginning of the future. The record I was looking at was both more and less than the paper file. It was more in that it was a composite, a joining together in some fashion of information in the records of both my primary care doctor and hospital. It was less in that much of the information in the paper record had not yet and, I realized, perhaps never would migrate to the electronic version.

Even if it never imported the data buried in my primary care doctor's manila folder, I knew that this composite electronic file would, over time, grow significantly. More data from more sources would eventually find their way into the file. At this point, however, it contained various lab results, my billing history and some information regarding various hospital visits. My allergist had obviously not yet chosen to participate and apparently was not being required to participate. My dermatologist belonged to a different system and could not participate. While my primary care doctor used e-prescribing, none of my medications were listed. My "pharmacy benefit manager," whatever that means, has its own Web site listing and facilitating prescriptions and refills. My insurance company, perhaps the most influential stakeholder regarding the cost of my health care, still provides no electronic access to anything related to my account.

Even with the relatively limited data online, however, I could appreciate the attraction of EHRs. I could, for example, easily see on the screen the trend of lab results over time. There were some explanations of lab tests that helped me to understand what they were about. Hospital visits that I had either forgotten about or could not remember when they occurred were all listed. I now receive reminders of scheduled appointments and can do a variety of things electronically that used to require a phone call. While there still was not all that much data in the electronic record, what was there was organized, was certainly more than I had had before, and was bound to grow larger and more detailed in the future. From a patient-centric point of

view, it just seemed right to have access to this and other information about my health that others already had.

On the other hand, I quickly began to wonder both about some information that was facing me on the screen and also about some information that was not there at all. The nature of some visits to the doctor or hospital, for example, was identified with abbreviations. Shorthand and codes were fine for the paper record which would only be read by the doctor or insurance company but not really fine if there were to be many audiences for the data, some of whom would not understand the shorthand and codes. For all the traditional mocking of doctors' handwriting, the EHR had its own technique for making something difficult to understand. If this were to end up being a file contributed to and shared by several audiences, each audience might have its own special language.

Lack of clarity was troublesome but even more troublesome was information I did understand. For example, I could see that there was a visit to an emergency room ten years ago. It probably took place even though I did not remember it. The visit was categorized, however, in a way that seemed mistaken even if it had occurred. There was no information as to how or why that visit was being categorized as it was. I did not understand at the time that sometimes these categorizations have more to do with getting paid by the insurance company than describing what was wrong with me. I also did not understand that the law does not permit the deletion of information from a medical file so I looked for something on the screen that would allow me to do what the credit bureaus, banks and other online entities allow, namely contest the validity of something in a record. For my medical record, however, there was no such option.

I suspected that the hospital thought that all it was doing was providing me with convenient access to information that I never had before. My sense, from work I had done earlier in my career, however, was that a shift from paper to digital is never this simple. Often, such a change creates a new environment with new roles, new relationships, new participants and new expectations. In addition to conveniences, there may also be complexities and various other unanticipated consequences. Often, we had learned, one of these unanticipated changes involved disputes.

Some observations

a. Technology and the generation of disputes

I had never raised questions about the information in my paper record because I did not know what was in my paper record. Disputes cannot occur when one is unaware of information that might be at the heart of a dispute. We do not, in other words, fight about things we do not know about. We also do not fight when there is no available forum for fighting or access to the forum is too costly or complex.

Access to my EHR allowed me to see information that could affect my health care in the future and some of it seemed inaccurate, incomplete and unclear. I, and increasing numbers of citizens, are being given access to a kind of health biography that is not being written and then edited in some traditional way but is being assembled and organized by software that receives or extracts the information from a range of sources. This was not only a continuing process but one that was likely to accelerate. The collection of data would grow larger, more detailed and

more complex over time, often containing or linking to information that was relevant to my health but that in the past would have been kept separate. It seemed likely that this would become something that I might consult often, perhaps not as often as I check my bank balance but more often than I look at my credit report. Thus, while relatively few questions might have been asked about what was in the paper folder, this would be different. I had no real access to my paper folder and felt no need or responsibility for the data in that file. Something horrible would have had to happen for me, and my lawyer, to seek details of what was in the paper folder. With the EHR, the threshold for my interest and access was much lower. I had no idea really how or when my paper file was used but now that I had access to an electronic file, I wanted the data to be accurate, meaningful and reliable. As a result, it would no longer require grievous treatment errors to trigger many questions about data, treatment and other issues.

I had learned from studying other online environments that entrepreneurs and even those building innovative online environments almost never consider the issue of disputes. They generally assume that if the software works as planned, there will be few if any disputes. If they are confident in how the software will work and that there will be no disputes, they have little reason to provide mechanisms for filing complaints. If, as a result, no complaints are filed, the general assumption almost always is that there was nothing to complain about.

There are several problems with this line of reasoning but the major one probably is the assumption that flaws in software are the main cause of disputes arising out of online activities. Mistakes in programming can be a problem but it is actually the use of software that works as designed that generates most disputes. Our first experience in mediating a significant number of disputes arising out of online activities involved eBay. In 1999, eBay had asked us to look at disputes that were occurring between buyers and sellers. Over a two week period, eBay users filed two hundred complaints, more than we anticipated and really more than we were able to handle. These were disputes between buyers and sellers where the auction had concluded successfully but some problem arose with the item or delivery of the item. Based on what we found, eBay delegated online dispute resolution to an Internet start-up, SquareTrade. Two years later SquareTrade was handling over a million complaints. A few years later SquareTrade was handling over 6,000,000 complaints. Ebay took over dispute resolution two years ago and is now handling the extraordinary level of 40,000,000 disputes per year.

It is almost impossible to anticipate the variety of problems that can arise as an online system is used, particularly when it is used for a novel purpose. Thus, as use grows, disputes tend to grow as well. Figure 1 identifies a set of elements that, in addition to bugs in software, can affect the nature and frequency of disputes. Ebay's disputes are not a result of the failure of its software but of the use of its software in several of the ways listed in Figure 1. While the huge number of transactions that occur may be the most significant element, thus making it possible for a very small percentage of problem transactions to be a very large number, eBay also makes it easy to complain. Indeed, it can increase or decrease the number of complaints by increasing or decreasing the number of clicks it requires to get to the dispute resolution page. Also leading to large numbers of complaints being filed is the fact that eBay users have various mechanisms for alerting other users to problems. Further, the novelty of purchasing from an unknown and distant source where fear of fraud is a constant can also generate mistrust and misunderstandings.

Ebay is a phenomenon because of its size and the number of disputes that are resolved without human intervention. Yet, the numbers would be even greater if eBay were not aware

that it could influence the number of disputes it needed to respond to by attending to some other elements in Figure 1. Thus, eBay also has a well-known feedback rating system in place that encourages parties to be careful in bidding on an item and this has always been an effective mechanism for dispute prevention. Ebay has also taken action to reduce a need to develop more sophisticated dispute resolution procedures. For example, disputes over transactions in virtual goods, such as swords used in the online game Everquest, raise challenges not present in disputes over tangible goods and eBay does not resolve such disputes. When there was an attempt to merge data from eBay's reputation or feedback rating system to reputational mechanisms outside eBay, something that could generate even more disputes, it went to court to limit the use of information in that way. Finally, ebay disputes tend to be about single transactions rather than about longstanding relationships and between two parties rather than many parties, both characteristics of simpler disputes that might be easier to resolve.

What does this suggest about disputes arising out of the use of EHRs? Except for security breaches and privacy related disputes, there appear, at present, to be relatively few disputes reported involving EHRs. If there actually were no disputes, however, it would be quite surprising. Indeed, it would put EHRs in a unique category because we have not found any successful and highly active online environments in which there are no disputes. From Wikipedia to the virtual world SecondLife to the domain name system managed by ICANN to Facebook, disputes are a part of operating any highly active marketplace.

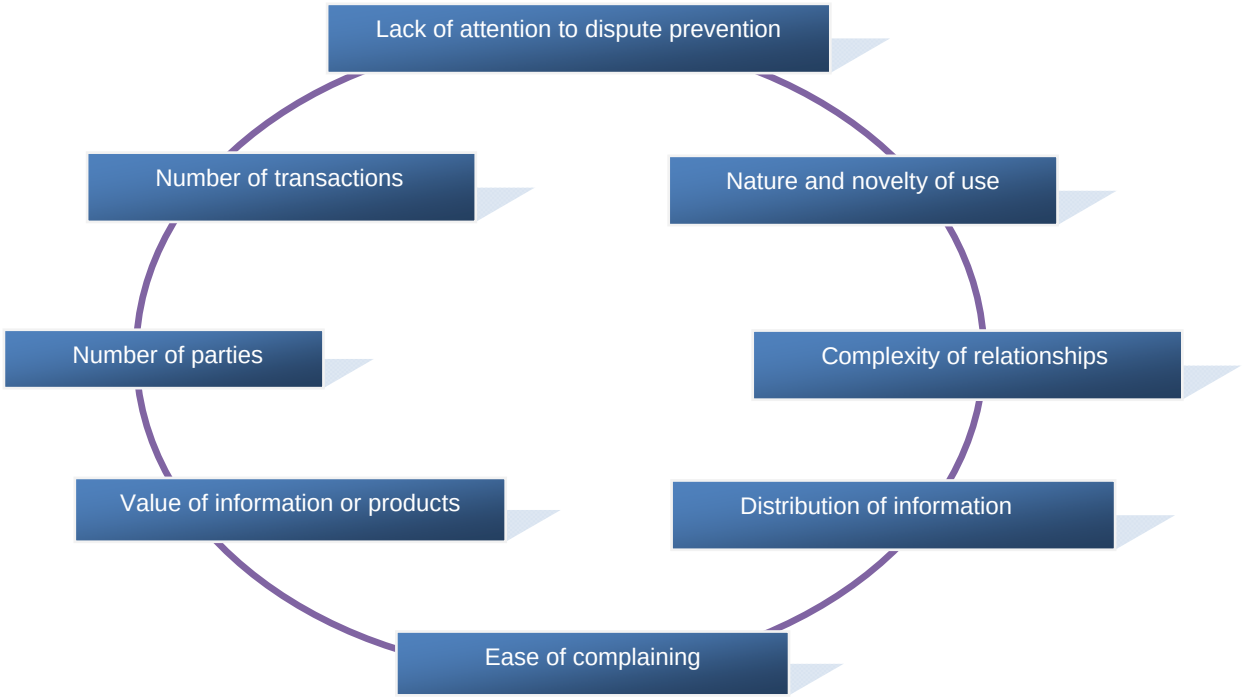
The range of disputes likely to occur in any marketplace of goods and services can be anticipated and planned for by assessing the nature and impact of the forces in Figure 1 on the particular marketplace. In general, the more of the factors in Figure 1 that are present, the more disputes there are likely to be. This is another reason why, as EHR use increases, disputes, probably in large numbers, are likely to occur. Further research should be undertaken but it seems clear that while many, but not all, of the factors that tend to increase disputes are present in eBay, the EHR environment has almost all of them.

2. EHRs and the management of disputes

The most effective short term (and also shortsighted) strategy for suppressing disputing numbers is to make it inconvenient or costly to complain about a problem. The issue of complaining was largely moot in the paper file environment because of the challenges that needed to be overcome in order to look at the file. Perhaps the reason my paper file was never easily accessible to me was simply to avoid questions by me about what was in it. In any event, dispute resolution in the era of paper medical files was either very informal, perhaps a conversation between patient and doctor about something that was probably minor, or something quite formal, perhaps leading to litigation or a complaint filed with a hospital or medical board.

The strategy of limiting disputes by not providing an efficient process for complaining is not novel and can be successful in the short term. Recently, for example, there has been media attention given to an online site called Yelp. Yelp is a Web site where one can post a review of any business. It has been fairly popular, with seven million visitors in December, and its policy for several years has been that it does not remove negative reviews. Although it has been accused of removing negative reviews about itself, it does not even allow the subject of a review to comment on a negative review.

Figure 1: Factors affecting nature and numbers of disputes



This was eBay's original strategy concerning disputes related to the posting of negative feedback. Even when eBay authorized an online dispute resolution process for transactions, it did not allow the process to be used for claims that negative feedback that had been placed was unwarranted. Ebay eventually modified its policy, recognizing that in an online environment, suppressing negative and true information damages its own reputation and reduces confidence in the whole system. Dispute resolution is obviously important to users of a system but it is also valuable in sending a message to potential users about how sensitive the site is to the needs of its users. Dispute resolution, in other words, can be a factor influencing whether users remain and use the system as well as being a factor in whether potential users decide to try using the system.

It seemed inevitable that Yelp would eventually change its policy and it finally did this a few weeks ago. Limiting opportunities to complain represents an attempt by a site to manage the flow of information, a strategy that is less likely to be successful in an electronic communications environment. We are in an age of blogs, Twitter and other online vehicles for communicating outside of traditional channels and companies, institutions and citizens are alerted to problems in ways that did not exist in the past. As I was completing this in mid-April, a front page story in the Boston Globe told the story of a series of errors in a Google Health personal health record.[4] While this confirmed some of our thinking about how and why serious disputes in electronic health records are likely to occur, it was also notable in how the reporter found out about the problem. The issue had some to the attention of the reporter as a result of a blog entry that the reporter read. Just a day later, in a very different context, it was reported that Amazon would correct a problem in its book ranking system because of what was being circulated via Twitter.

EHRs are not something that stand alone, like paper records may have, but are a part of a larger and more active communications environment. The current transition is not just from a paper medical file to an electronic folder wrapped in software but to a new electronic communications environment in which information flows both faster and in a more complex pattern. Disputes are more numerous in such an environment and are more difficult to hide but there has also been development of online dispute resolution tools that can be employed to manage disputes. The core idea of online dispute resolution is that just as communication technologies employed widely and creatively can generate disputes, communications technologies employed widely and creatively can respond to disputes.

As I looked at my own electronic medical file, it was clear that this new container of information was much more complex than the old and, as more information was brought in from more sources, could only grow more complex. It was not simply that there would be a growing amount of information, some of which might be problematic, but that a fairly dumb container of information, the manila folder, was being replaced by software that did much more than store information. Software, I knew, managed not only the storage of information but access to, processing of and the communication of information. Software allowed me to have access to information that had value to me but I could see clearly that, over time, others would also be wanting to have access. Data was coming into my file from an increasing number of sources but data could be manipulated in new ways and, as already is occurring, pressure would build to transmit the information being collected to more users than before. From discrete files

[4] http://www.boston.com/news/nation/washington/articles/2009/04/13/electronic_health_records_raise_doubt/

located in different offices to shared files available to many parties involved a move to a much higher level of complexity than had existed previously and one in which we had little experience, all conditions that suggested the need for research in online dispute resolution processes.

My original interest in my EHR was in how problems and disputes involving it might surface and affect the health care I would receive. I could see that the EHR was not only a new vehicle to enhance treatment and was also not a system in which information about me would be available only to entities directly involved in some way in meeting my health care needs. In this emerging marketplace of information, there would be demand for my information, with or without identifiers, by entities that were part of a wider circle, that were linked to me but only through other entities. This might and hopefully would improve health care and reduce costs but it could do this only if there were trust in the whole system. Expecting that disputes would not occur and that trust in the system would not be affected by disputes seems both risky and unrealistic. Expecting that information about problems will not leak out is also risky and unrealistic. Finally, while privacy issues deserve attention and are receiving it, the ramifications of problems with inaccurate or unreliable data can have life and death consequences. There have, of course, always been cases of malpractice in which information in paper folders somehow resulted in a horrible mistake. If electronic information and the network become the brain and nervous system of the health care system, however, then EHRs and how they are used will be quite different from the paper folders and so will the disputes. It was written recently that "new business models come with new problems"[5] and it is as the expansion of EHRs is being planned that efforts are needed to identify as many of the problems, disputes and solutions as possible.

[55] Stephanie Clifford, "A New Style of Magazine, Not Off the Rack, Comes With a Few Flaws," New York Times, April 21, 2009, p. B3.