A simple model to structure the information of parties in online ADR

Arno R. Lodder

Computer/Law Institute, Vrije Universiteit Amsterdam, http://www.rechten.vu.nl/~lodder

lodder@rechten.vu.nl

1. Introduction

Over the last ten years several dialogical models have been developed within the AI & Law community. Browsing through the ICAIL proceedings of 1993-1999 we see dialog games like, in alphabetical order, DiaLaw (Lodder & Herczog 1995), HELIC (Nitta *et al.* 1993, 1995), the Pleadings Game (Gordon 1993), and quite a number of other authors, like Freeman, Jakobovits, Loui, and St. Vincent.

Over the last ten years the World-Wide Web became popular. With the rise of e-commerce, a new phenomenon originated: e-disputes. In order to solve these online disputes, companies started to offer online dispute resolution services, like negotiation, mediation and arbitration, commonly known under the general term Alternative Dispute Resolution (ADR). The number of ADR-sites grow each month: December 2000 already over 50 sites.

AI & Law (dialogical models) and online ADR are two worlds apart. However, these two worlds undeniably have common grounds that are interesting to explore. After a brief introduction into the field of ODR (Online Dispute Resolution), it is showed in what way AI & Law research can be useful for online ADR. Therefore, a simple model is introduced that helps to structure the information exchanged between parties in ODR.

2. Online ADR or ODR

Although at the moment of writing the NASDAQ is low and most .com start-ups have problems getting successful, the number of ADR-sites is still increasing. The significance to solve e-disputes in an appropriate way is also recognized by governments. For instance, in the recent Directive on electronic commerce (2000/31/EC, *OJ* L 178/1) the European Union has stressed that ODR should be stimulated.

There is a wide variety in the services offered. Some sites are dedicated to a particular type of conflict (financial, insurance, family matters), specific parties (businesses, consumers) or an ADR-type (negotiation, mediation or arbitration). Other sites accept all disputes from no matter what party, and offer the whole range of ADR-procedures.

Some online initiatives of the three ADR-types are discussed. First, prominently present on the internet is online negotiation. With negotiation software parties can present their interests, proposals and desired outcomes. The tools vary from very simple, blind-bid systems (e.g. Cybersettle, ClicknSettle) to more

advanced support (e.g. Smartsettle).

Second, a branch still in its infancy but developing fast is online mediation. Some online mediation consists of exchanging e-mails via a mediator (Consensus mediation). Other sites use web-based environments, sometimes called e-rooms (Onlineresolution), in which parties can negotiate with the help of the mediator. An e-room contains various folders. Because each issue is dealt with in a different folder, it helps the parties to focus. The e-room also has a folder containing a blind-bidding tool.

Third, in 1996 the Virtual Magistrate Project launched one of the first online arbiters. At the end of the project, 1998, only one case had been brought in. The first commercial site, iCourthouse, is a special type of non-binding arbitration, where juries decide cases. While normally all members of the jury are present in the courtroom, in the iCourthouse a jury consisting of a few up to over 50 people look at a case online and give their opinion. The decision of the jury is non-binding.

The world-wide web not only makes it possible to solve disputes online, it is also the source of new conflicts. For instance, disputes between people involved in electronic commerce transactions about payment, delivery, etc. Disputes that have a genuine international character especially benefit from online ADR. Since the physical location of parties does not matter online, they might be located in different countries or even continents. An example is online arbitration on domain name disputes.

3. Domain name disputes

The Internet Corporation for Assigned Names and Numbers (ICANN) coordinates the registration of top-level domain names (.com, .net, and .org.). Whoever is registering a domain name has to agree that in case of complaints he submits to a mandatory administrative proceeding before one of the providers approved by the ICANN. In November 1999 the first provider was approved: the World Intellectual Property Organization (WIPO). There are three other providers: the National Arbitration Forum (NAF), eResolution and CPR.

How is information during the proceedings exchanged? In December 2000 on the sites of NAF and CPR both the complainant and the respondent could download MS-Word documents that after being completed could be either e-mailed or faxed. In addition to that, WIPO and eResolution also had web-based forms for both the complainant and the respondent.

It would facilitate both the parties and the arbiter if the information entered by the parties would be more structured. The model of the next section could help to structure the information.

4. A simple model

The model presented here is generic, not restricted to a particular kind of ODR. However, the focus is primarily on online arbitration. The arbiter can use the model to gather the information necessary for deciding the case. But the model can also be used

by the parties in case of online negotiation, and a mediator can use the model to structure the online mediation process.

4.1 Defining the model

One of the aims of dialog systems is to structure the argumentation of the players. In particular this feature is used here. In most systems logical concepts characterize the moves of the players. For ordering information and showing the basic structure of argumentation, formal notions of arguments, defeat, rules, preferences, etc., are not necessary. The purpose of the model is to structure the information of the parties in online ADR. The model is not meant to replace existing ODR procedures, but to be incorporated into it. For instance, the lay-out of web-based forms could force the parties to follow the model.

The central elements are the parties, the statements and the games' board. They are defined as follows.

THE PARTIES
There are two parties, the Complainant and the Respondent.

STATEMENTS
A statement is an expression in natural language.
Each statement deals with only one topic.
An issue is a statement.
Supporting statements support an issue.
Attacking statements attack a statement.

THE GAMES' BOARD
The games' board is empty at the first turn. The games' board consists of all statements added by the parties according to the rules. The parties move alternately, exchanging after each turn the games' board.

The Complainant and Respondent can introduce statements according to the rules that are discussed shortly. Statements do not require any format, they are just put forward in natural language. The only requirement is that a statement should address a single topic. There are three types of statements. Besides an issue, there are statements that support an issue and statements that attack other statements. The games' board is a metaphor, used to describe the collection of statements added by the parties.

In dialog systems parties can perform usually four move types: claim, accept, question and withdraw. By allowing parties only to claim statements, the information of the parties in online arbitration can be structured sufficiently with two simple rules.

RULE 1 - ISSUES AND SUPPORTING STATEMENTS
First step: Introduce an issue
Second step: Adduce one or more statements supporting the issue (supporting statements).

RULE 2 - ATTACKING STATEMENTS
In reaction to any statement of your opponent you do not agree with, you can adduce one or more statements that make clear why you do not agree (attacking statements).

The first rule is about the introduction of issues and supporting statements, the second rule about the reaction to statements. Using these rules three models are defined, the basic model, the 2-turn-issue model, and the n-turn model. Only the n-turn model is discussed here.

THE N-TURN MODEL
First turn: Complainant executes rule 1 as often as necessary.

Consecutive turns: The parties execute rule 2, and execute rule 1 as often as necessary.

In the first turn, the Complainant executes rule 1. He starts with identifying an issue (first step). Subsequently he adduces statements supporting the issue (second step). Note that a statement deals with only one topic, reason why he can enter one or more supporting statements. Finally, the Complainant applies the two steps of rule 1 again if there are more issues to be identified. If the complainant is finished, he hands over the games' board.

In consecutive turns the players can react to all statements they do not agree with. Note that an issue is a statement, so the players can also react to issues. At each turn the parties can introduce new issues. It might be that providers of ODR want to restrict the introduction of issues. Therefore, and in line with civil proceedings, the not discussed 2-turn issue model restricts the introduction of issues to the first two moves.

4.2 Comments and possible extensions

The content of statements is not checked, so parties may enter irrelevant statements. This cannot be avoided in an open environment, even not if formal formats are used for the statements. Note, however, that it is in the best interest of the parties to at least not enter irrelevant or obstructive statements intentionally. In case of negotiation and mediation this could hinder that consensus is reached, and in case of arbitration it could annoy the arbiter.

Since the models should become part of an existing ODR-procedure, it is not defined at what moment the dispute ends. This is to be decided by the rules of the proceedings, e.g., the domain dispute resolution rules. Possible stop criteria are time constraints or a maximum number of turns. Another stop criterion could be that the dispute ends if a party has not add any statements, so if the games' board is handed over without any additional statements.

Based on desires of ODR-sites, the model can be adapted. For instance, on request of an arbiter (or sites offering mediation or negotiation) the following rule about the status of the statements could be implemented.

SILENT IMPLIES CONSENT
An issue is agreed upon if neither one of its supporting statements is attacked, nor the issue itself is attacked. A statement is agreed upon if it is not attacked.

5. Conclusion

The model is currently implemented in JAVA by Paul Huygen, and can be consulted at <www.rechten.vu.nl/~CLI/odr>. An application of the model on a domain name dispute (davidgilmour.com) can be obtained by the author.

ODR is a new phenomenon that is, or likely to become a popular way to resolve disputes. For the AI & Law community ODR is an interesting field, and vice versa. From an AI & Law, in particular an argumentation perspective, I aimed to improve in this short paper the structure of the information exchanged between parties in ODR. The models are not meant to replace existing ODR-procedures, but to be included in the forms used by the ODR providers. Maybe, more joint ODR and AI & Law projects will be carried out in the future. The first step towards the meeting of ODR and AI & Law has just been taken.