

## **Likely Developments in ODR - Notes**

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### **Introduction**

1. These notes consider likely developments in online dispute resolution. Although our group is gathering many ODR success stories, we should bear in mind that the technologies and techniques that underlie the current generation of ODR are still at an early stage in their evolution. Given that the group is charged with the task of looking ahead and thinking strategically about ODR, we must also be alive to likely future developments. More formally, one of our terms of reference invites us '(t)o take account of technological advances and developments that will affect the use and attractions of ODR'.
  
2. In addressing this term of reference, we decided to look first of all at the ways in which ODR might be enhanced in coming years and then to think about what enabling technologies might be of support. We are alive, of course, to the fact that the technologies themselves are changing rapidly and so we are reluctant to be dogmatic or prescriptive about the future. As for the enhancements in ODR, we suggest they can be grouped under four headings:
  - systems to help analyze legal problems
  - systems to assist in negotiation
  - systems to assist in decision-making
  - systems that make decisions.

In the following pages, we look at each in turn, and then point to some of the enabling technologies that are likely to underpin future generations of ODR.

### **Systems to help analyze legal problems**

3. Today's ODR systems generally assume that their users' problems are, as it were, within their scope. Tomorrow's systems are likely to be able to help users identify whether they have claims worth pursuing. They may also assist in framing their initial problems in a structured and systematic way, and in guiding users on the broad legal context of their problems. ODR systems may also advise on whether users have come to the right system and, where appropriate, point to other, better suited mechanisms for resolving particular disputes.
4. Future systems may also be able to advise users on their prospects and even likelihood of success, either on a statistical basis (based on past decisions) or by engaging in some form of legal reasoning (based on some conceptual model of the relevant branch of law).

### **Systems to assist in negotiation**

5. Many current ODR systems enable parties to negotiate with one another; sometimes, but not always, without any involvement of other human beings. These systems provide platforms for low-cost, non-combative negotiation (as their providers claim).
6. Where there is no human intervention, tomorrow's systems may offer prompts on the tactics and strategy of negotiations. These prompts could be of two broad kinds. First, there might be systems that help to optimize one party's position, guiding on what is considered to be in the best interests of the user. Alternatively, in the spirit of game theory, the systems might make concrete recommendations for resolutions that constitute sensible outcomes for both parties (on the principle that rational decisions by individuals can lead to collective decisions that are irrational).

7. Where there is human intervention, additional facilities might be available, for example, to help a mediator in bringing the parties to a negotiated settlement. Such tools might, again, suggest end positions or could provide guidance to mediators on how to remove log-jams, maintain dialogue, keep matters amicable, and help parties look in new ways at their negotiation.

### **Systems to assist in decision-making**

8. Another main category of ODR system extends beyond negotiation over amounts owed to the actual resolution of disputes. The technology here provides an infrastructure and framework for the resolution process. These generally involve the participation of an impartial 3<sup>rd</sup> party, whether as a mediator, arbitrator, neutral, or adjudicator (hence e-mediation, e-arbitration etc). These systems are ORD-enabled ADR and are intended to support lower cost, less combative dispute resolution (again, as providers claim). Future systems will provide assistance in two ways. First, there will be facilities which help and support the independent 3<sup>rd</sup> parties themselves, by providing tools to support their mediation or arbitration activities (for instance, as above, by suggesting how to remove stumbling blocks, keep dialogue going, maintain amicable exchange, and to encourage help parties look in different ways at their disputes and their resolution).
9. The second type of assistance for ODR/ADR will be help for the parties themselves – both on matters of substantive law (diagnostics, predictions, and flowcharts, for example) and on techniques for engaging in fruitful resolution.

## **Systems that make decisions**

10. The most sophisticated types of ODR systems, from a technical point of view, will be those that autonomously come to decisions or make suggestions. The facts of cases will be presented to these systems (as systems become more sophisticated, respectively by form-filling, question-and-answer, or natural language), and conclusions will be generated. Basic versions of such systems have been in operation since the 1980s. More advanced systems, harnessing the latest AI techniques, are likely, before long, in certain categories of case, to outperform human beings. An extreme characterization of such a system would be as a 'computer judge' but a lower key description would be 'automated public administration'.

## **Enabling technologies**

11. A variety of enabling technologies will support the next generation of ODR systems, as we have outline above. Some of these, perhaps, have not yet been invented. Others are under development but under wraps. Of the technologies that are already operation, the following seem to hold particular potential:
  - Big Data (and sometimes Small Data) – databases relating to past cases, enabling users to explore statistics and trends in similar categories of case.
  - Diagnostic expert systems – rule-based, question-and-answer systems, that will solve legal problems, draw legal conclusions, and offer legal advice.
  - Watson-like artificial intelligence – IBM's system for answering questions expressed in natural language.
  - Wikis – collaborative, shared bodies of insight and experience from past users of ODR and from conventional litigants too.

- Virtual meeting rooms – collaborative storage areas for materials relevant to particular cases.
  - Game theory advisers – systems that use mathematical models to identify optimal outcomes for problems when the interests of two or more people conflict.
  - Online guidance – intuitive, non-technical help via flowcharts, checklists, decision-trees, FAQs.
  - Crowdsourcing – where contributions to dispute processes or decisions might be provided by groups of participants.
12. These various technologies are in different stages of development. Together, they are giving rise to the evolution of machines that are increasingly more powerful. No doubt, today's ODR capabilities will soon look crude.

### **Document support systems**

13. A further group of systems that will support future generation of ODR systems will provide various document facilities. The first will be document management systems – these will store materials relevant to particular cases, easily retrievable by users. Second will be document search and display systems which will help users locate and then view documents. Third, there will be automatic generation systems, that will be able, for example, to compile and generate settlement agreements (using basic data entered by users through interactive consultation).

### **Video-enabled ODR environment**

14. One further technology merits particular attention – video conferencing. Improvements in bandwidth and compression techniques suggest that high definition, desktop-to-desktop video-conferencing will be commonplace in a small number of years. This will move us from Skype quality to video and audio quality of the standard of what is known as

‘telepresence’. A recent demonstration by a leading supplier to RS confirmed that progress in this field is rapid – while there has been modest improvement in the dedicated rooms with large screens, the main investment and effort is now being expended on greatly enhancing the service via laptops, tablets, and handhelds.

15. Desktop telepresence will not, of course, have much impact on the forms of ODR that do not involve human involvement or intervention (such as blind-bidding). However, when the ODR is enabling and catalyzing engagement between human beings (whether lawyers or lay people), the scope for advanced videoconferencing is clear. We accept that this development will bring ADR and ODR much more closely together – this, again, will be ODR-enabled or video-enabled ADR. We are not worried about the labels and are more focused on the usefulness of the systems.
  
16. We suggest that thought should be given to the look and feel of the virtual environment in which video-enabled ODR/ADR takes place. While the informality of Skype can be useful and users are exposed rather randomly to whatever backgrounds happens to be in place, we envisage a more standardized set-up, with more neutral backgrounds for users; and backgrounds for e-arbitrators and e-mediators that somehow convey the authority of the role. Further, we envisage the integration of this environment with document management and document display technology (as described above) so that real-time interactions can be supported by the ready availability and intuitive presentation of relevant documentation.