



## Risk, Resilience and Reputation

# Using blockchain to open up new possibilities for resolving disputes

## Introduction

The nature of disputes and the way they are resolved is fast changing. Advances in technology have brought with it greater cost and time efficiencies when it comes to managing disputes, as well as innovative dispute resolution mechanisms which are already seeing uptake, and which are likely to continue to gain traction as they become more and more entrenched within particular sectors.

In this article we look at the direction of travel for new and innovative ways of resolving disputes.

Covid-19 has introduced a new dimension – the need for justice to continue in the face of global lockdowns and social distancing measures. This necessity has resulted in a greater adoption of tools that allow for hearings to take place virtually and also for documents to be hosted and used electronically. There is still a great deal to be determined with the continued use of virtual hearings. For example, in circumstances where parties, judges and arbitrators have a choice between a virtual and in-person hearing, it remains to be seen whether a virtual hearing will still be preferred. In addition, technical issues such as broadband connections and wider issues such as the ability to judge a witness's credibility will be factors that continue to affect the future adoption of virtual hearings.

Another development gaining pace is online dispute resolution ("ODR"), which is distinct from virtual hearings. ODR platforms handle the full lifecycle of disputes through the use of electronic communications and other technology. The future for ODR looks bright. ODR provides an effective forum for the resolution of simpler disputes, allowing parties to achieve quick results for comparatively little time and cost investment (e.g. consumer disputes and potentially even family disputes). The highly streamlined nature of ODR platforms, which allows them to provide fast results, means they are unlikely to be suitable for complex disputes arising out of long-term commercial relationships.



## Blockchain based dispute resolution

The growth of emerging technologies has also led to innovative approaches to dispute resolution. The use of blockchain for dispute resolution is one of those areas. The self-executing nature of smart contracts, whereby terms are in-built into the code, is such that disputes should be rare. However, disputes cannot be discounted and coding errors and hacks, for example, can lead to unintended consequences.

Examples of solutions which aim to provide a mechanism for resolving disputes flowing out of smart contracts include:

- **Kleros:** Kleros provides a fast and cost-effective dispute resolution system which leverages blockchain technology. Kleros operates by crowdsourcing anonymous "jurors", who deposit tokens in order to be selected. Jurors will then review the available evidence and make a decision. Those jurors who render an award which is consistent with the view of the majority will receive a payment, thereby in theory incentivising them to arrive at the "right" decision. Jurors who decide against the majority are penalised through the loss of tokens, which are transferred to the jurors who voted correctly. However, the nature of Kleros, whereby

jurors have a financial interest in voting the “right” way, arguably impedes impartiality. (i.e. will jurors make their decision based on what they truly consider to be the right outcome, or on what they perceive to be the most likely majority outcome?). The anonymous nature and unknown expertise of the jurors also presents difficulties, and means it is likely only to be suitable in the context of day-to-day transactions, as opposed to large scale complex disputes.

- **Confideal:** Confideal is a service which offers smart contracts which contain an integrated arbitration mechanism, allowing users to resolve their disputes without having to engage any third-party intermediaries outside of the chain. Users select their preferred arbitrator at the time of entering into their smart contract, with arbitrators being drawn from “*members of associations, arbitration centres or other organizations which confirm their status as professional arbitrators*”, thereby providing reassurance to users as to the appropriateness / expertise of their selected arbitrator. Confideal also includes a rating system for arbitrators, so that in theory the best-ranked arbitrators should receive more instructions, thereby bolstering the quality of justice administered.
- **Juris:** Juris provides an alternative dispute resolution system for blockchain smart contracts, and users can opt to have code embedded into their contract. In the event of a dispute, the Juris Protocol is initiated and performance under the smart contract is frozen. There is then a staged process for resolution of the dispute involving self-mediation, a poll judgement and a binding panel judgement as a final step.
- **CodeLegit:** CodeLegit supplies smart contracts with its “Arbitration Library” incorporated into the code of those contracts. Once a party triggers the Arbitration Library, performance under the smart contract will be paused. CodeLegit will then appoint an arbitrator, who may be legally qualified or alternatively may be someone with technical expertise. The CodeLegit model envisages that most communications will be via email, however arbitrators can request a hearing (either in person or virtually), if they consider it to be appropriate. In this regard, CodeLegit is closer to traditional dispute resolution forums than some other models.

Whilst the benefits of having dedicated, fast, in-built mechanisms for the resolution of disputes arising out of smart contracts are clear, it does also present challenges:

- The solutions available will typically be limited - either financial or a change to performance under the smart contract. There is also no ability under these mechanisms to seek solutions like search orders or stopping money leaving a bank account.
- Decisions will typically be decided upon limited, documentary information without the opportunity for cross-examination of witnesses or oral submissions.
- Depending on the model, jurors may be lacking in expertise, and their decisions may be influenced by financial incentives.
- Lack of transparency over decision making can affect the perception of justice and the overall satisfaction of a party that it has had its issues heard. This can lead to a growing sense of injustice and pent up grievance.
- Opportunities for appeal may be inconsistent and potentially unattractive.
- The extent to which decisions of such bodies will be upheld and enforced by local courts is uncertain and will depend on the nature of the model and the relevant jurisdiction.

## Conclusion

New ways of resolving disputes which are responsive to particular technologies and industries are gaining traction. The scalability of new tools such as private ODR platforms and blockchain dispute resolution forums will depend on several factors, including (i) the widespread adoption by sectors of these mechanisms, and (ii) the development of uniform regulatory and legislative frameworks (addressing, in particular, recognition/enforcement of decisions and processes for appeal). It will also depend, to an extent, on the relevant applicable law, and the extent to which that legal system facilitates the use of such alternative mechanisms (for example, in relation to rules of evidence). Nevertheless, the building momentum of change is likely to continue.

Businesses looking to contract for the future should give active consideration to the dispute resolution mechanisms, including engaging in stakeholder discussions, that will help tailor the solutions to the problems.

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