

Law, Governance and Artificial Intelligence – supporting human decision making

Professor John Zeleznikow

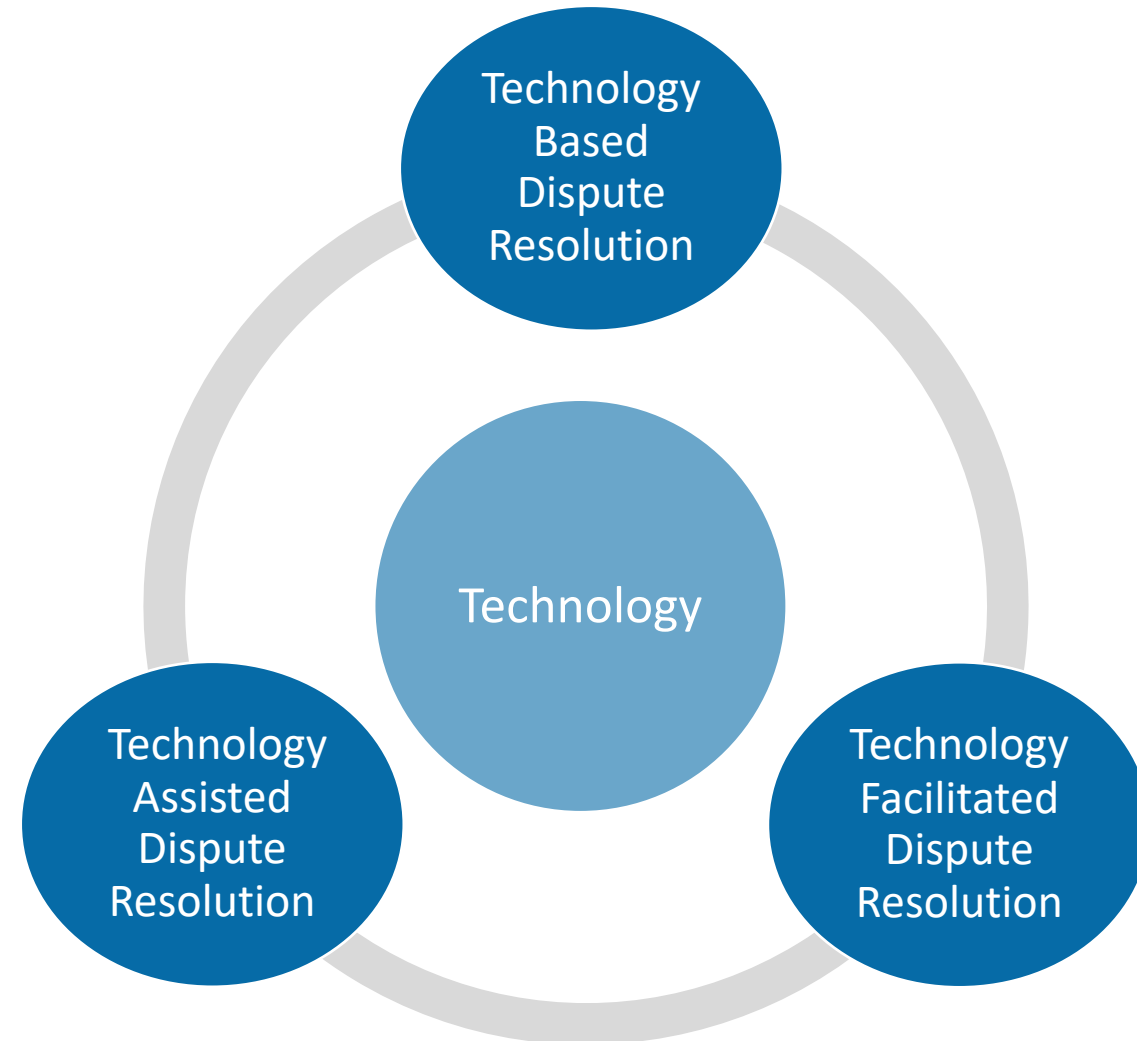
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What is Online Dispute Resolution (ODR)?

- There is no generally accepted definition of ODR*
- We can think of it as using the internet to perform Alternative Dispute Resolution (ADR)
- ODR means different things to different people



*Lodder, A.R. and Zeleznikow, J., 2010. *Enhanced dispute resolution through the use of information technology*. Cambridge University Press.

Introduction

- The pioneers of ODR, saw it as a futuristic idea that could cope with ecommerce disputes.*
- Despite a number of papers very few practical systems were widely used.
- Legal communities are now realising its benefits, especially through the use of Artificial Intelligence.

* Katsh, M. Ethan. "Dispute resolution in cyberspace." *Conn. L. Rev.* 28 (1995): 953.

Why use ADR and ODR?



Time of Trials



Cost of Traditional Legal Recourse



Acceptance Among Key Stakeholders



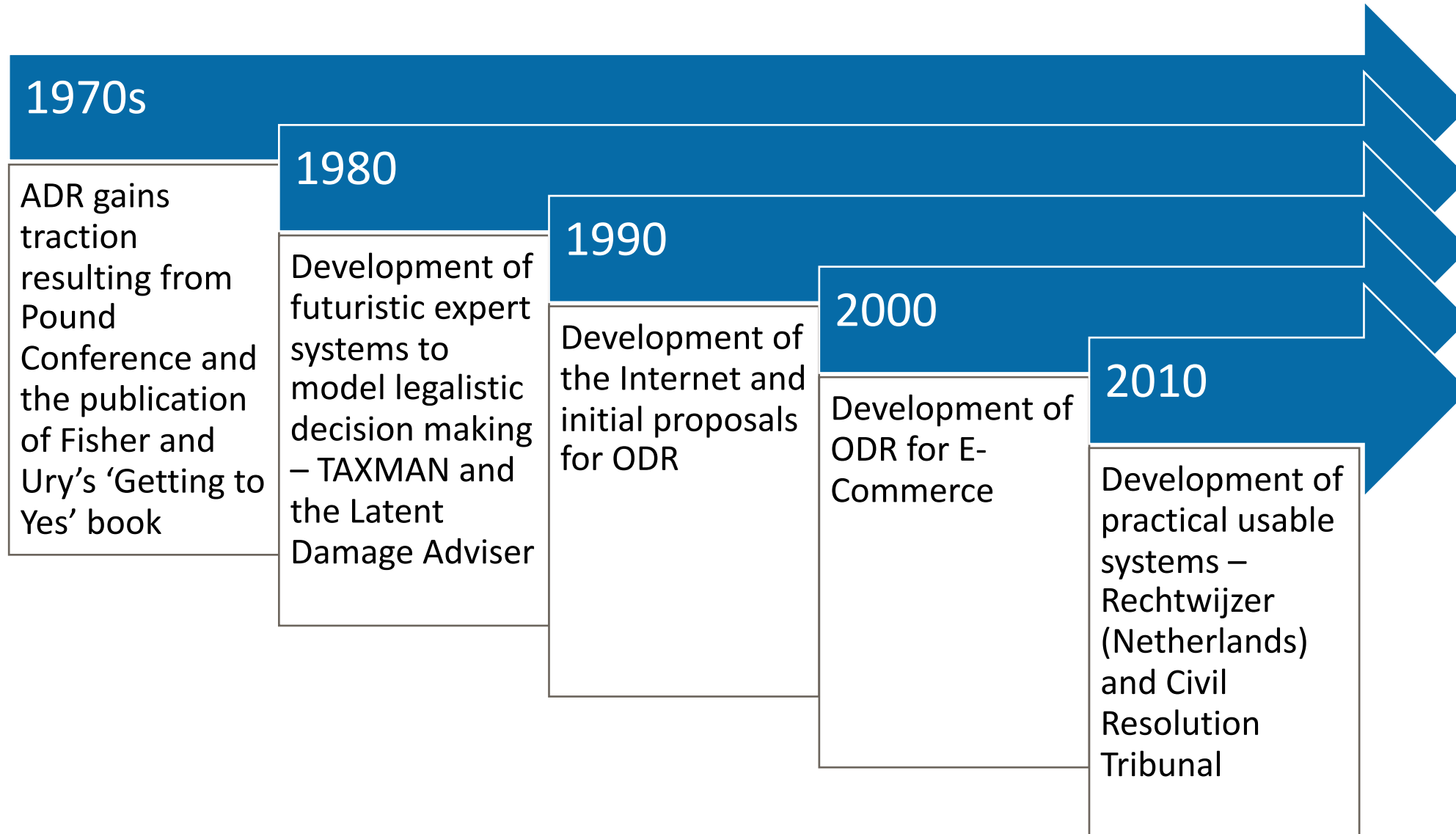
Efficiency in low-value transactional disputes

What would you use?

Example: An eBay user purchases a Madonna CD but is left unsatisfied. Would you prefer an online process for achieving redress or pursue litigation with the seller who may be based in another country.



The ODR Timeline



And Now...

- ODR has moved beyond Ecommerce – ODR is now being used for non-financial disputes
- ODR via Artificial Intelligence is being suggested as being capable of supporting Self Represented Litigants (SRL): this brings forward the issue of whether SRLs can sufficiently understand legislation, cases and the technology to adequately represent themselves.

The ODR Timeline

Technology

Text

Telephone

Real-time
Video

Linear
Programmed
System

Intelligent
System



The Split Up System – an early use of Machine Learning in Law

- Provides ODR and supported machine learning to provide advice about BATNAs regarding the distribution of marital property following divorce.
- ‘Split-Up’ used a series of 94 Toulmin Arguments to advise upon distribution of the couples property.
- The research was viewed as futuristic work!
- On the following pages you can see articles describing the system in the London Daily Telegraph of 4 July 1996
- It was suggested Charles and Dianna would use this in their divorce
- You can also see the logic system

Computer to help split divorce couple's assets

DIVORCING couples will be able to divide their assets aided by a computer program devised by Australian scientists.

The program, called Split Up, analyses hundreds of past Australian divorce cases. It evaluates the assets, needs and future prospects of each party and comes to a judgment on how their property would be split if the case went to court.

"We designed the program to think like a Family Law court judge," said Dr John Zeleznikow, a senior lecturer in the school of computer science at La Trobe University, Melbourne.

"It's taken us five years because it uses neural network technology to mimic the way a human would think

By Robert Uhlig
Technology Correspondent

and evaluate a particular case."

Dr Zeleznikow said the program could be adapted to English law by feeding it with enough divorce cases from English and Welsh courts for it to make a decision.

"If someone in England would like to help us, we would love to adapt it for you," he said.

The first prototype version used a divorce between the Prince and Princess of Wales as a test case.

"That was five years ago, before anybody thought they would split up," Dr Zeleznikow said. "But we wanted it to work equally well with

atypical cases as normal divorces."

Split Up asks each party a series of questions on income, effort put into the marriage, child-rearing duties, health, assets, education, employment and future prospects.

Once it has decided how the couple's assets should be divided, it reviews the parties' sociological circumstances to explain why it has made its decision.

Dr Zeleznikow's team hopes to sell the software to accountancy firms and lawyers who do not specialise in Family Law. They hope it will cut litigation costs.

He said: "It's intended to let couples know what is likely to happen without them having to go to court."

SOFTWARE TAKES A HARD LINE ON THE PRINCE

THE Prince of Wales should assign 70 per cent of the royal couple's assets to his estranged wife, according to the Split Up computer program, writes Robert Uhlig.

Andrew Strainieri, who helped to develop the asset-splitter for his doctoral thesis at La Trobe University, worked with The Daily Telegraph to assess how the Prince and Princess of Wales should divide their wealth.

"It's a difficult case to process because of their extraordinary circumstances — it borders on stretching the system too far," he said.

"The split is based on Australian law, but I believe British law is very similar."

Neither has assets — the Duchy of Cornwall owns the Highgrove home, and the Princess of Wales does not have an income despite having a full-time job.

Mr Strainieri said: "After analysing the division of assets, the Split Up program justified its decision by saying that in effect the Prince and Princess jointly run a family business.

"Although the Prince



'Stretching the system': the Prince and Princess

receives all the income — estimated to be £1.75 million — it should be considered as a joint salary."

Both parties were regarded as putting equal effort into their work, but because of the Princess's widespread popularity, the "outcome" of her work was judged to have a slightly higher value than that of her husband's.

The Princess was assumed to contribute marginally more to child-rearing, whereas Prince Charles's gardening interests gave him a slight lead in "unpaid labour in the house".

The Split Up program weighed heavily against

Prince Charles because he has a degree from Cambridge whereas the Princess failed her O-levels. Their health and the well-being of Princes William and Harry were also taken into account.

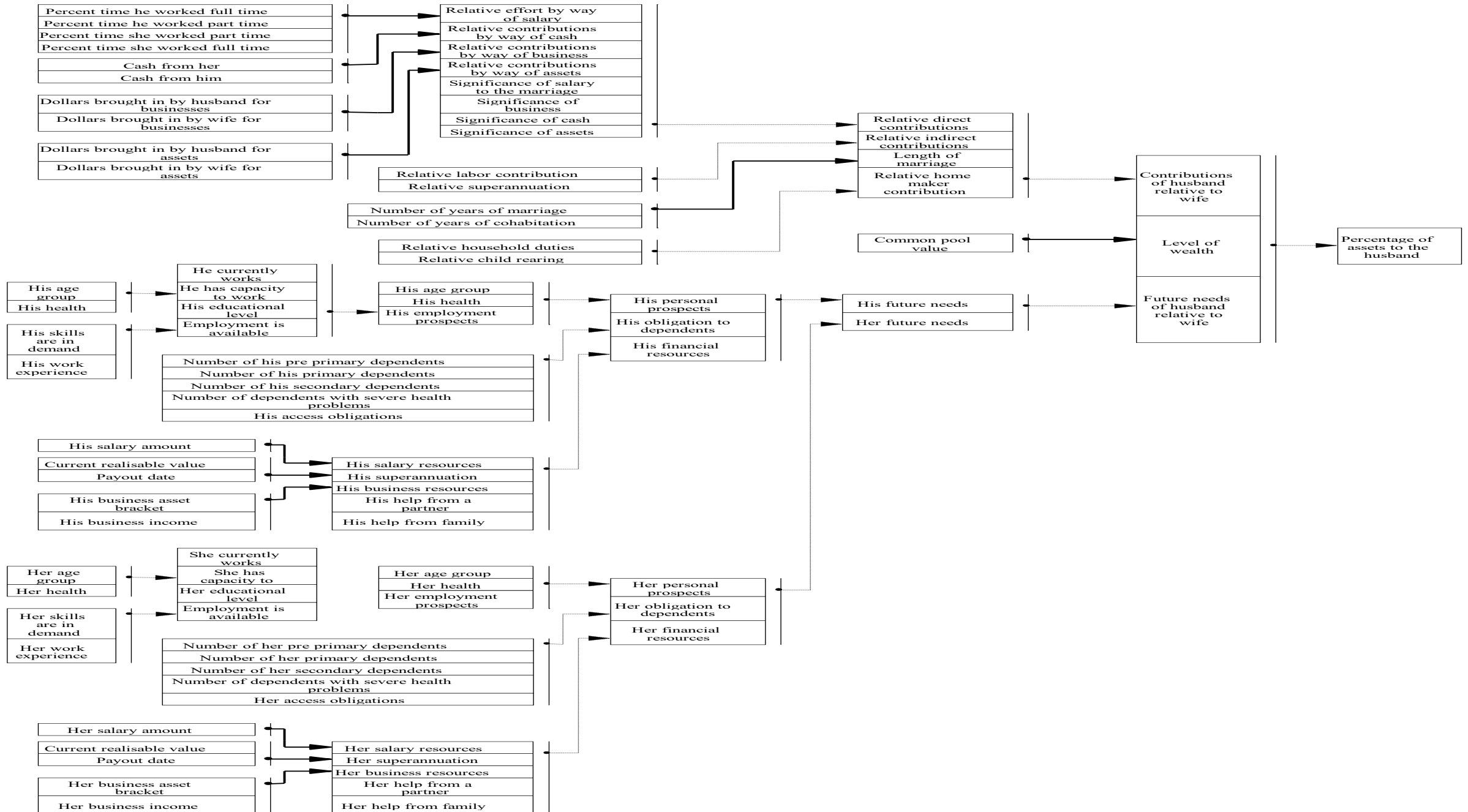
"As part of its assessment, the program considers whether either of the divorcing parties has repartnered," said Mr Strainieri.

"But, despite Prince Charles's association with Camilla Parker Bowles, we cannot take this into account as we don't know how much she helps him with his housework."

The program summed up its verdict: "The Prince has abundant resources for his future, and his needs are likely to be less than his wife's."

"Both have specialist skills which are in high demand in their respective workplaces — so both have good employment prospects.

"Because she has no assets or income without him, and is judged to have been a slightly greater home-maker, the couple's assets should be split 70-30 in her favour."



The Family Winner System

- The Split Up system kindled our interest in ODR, and how could Artificial Intelligence help support ODR.
- My subsequent development of the Family Winner System to help provide trade-offs (see video <https://www.youtube.com/watch?v=YOZczuvrou4&t=61s>) raises issues on how to appropriately use ODR.



- *Do we use ODR as a tool to support decision-making or should the ODR system be fully automated?*

Consumer Confidence in Online Dispute Resolution

- For consumers to have confidence in ODR processes we must ensure:
 - Fairness
 - Trust
 - Security
 - Appropriate Governance

Fairness in ODR

- Zeleznikow and Bellucci (2012) have developed a set of important factors that should be incorporated into “fair” negotiation support processes and tools.
- These include
 - Transparency
 - Highlighting and clarifying the shadow of the law
 - Limited Discovery

Trust in ODR

- There are four categories of Trust in ODR
 - *ODR as a trust provider/facilitator.*
 - *User's trust in ODR*
 - *Interpersonal trust*
 - *Trust in content offered by the system*

Security in ODR

- Ebner and Zeleznikow (2015) have developed a framework for the differentiation between four types of security
 - *Information Security*
 - *Data security*
 - *Personal security*
 - *System security*

What is the relationship between ODR
and automated systems?

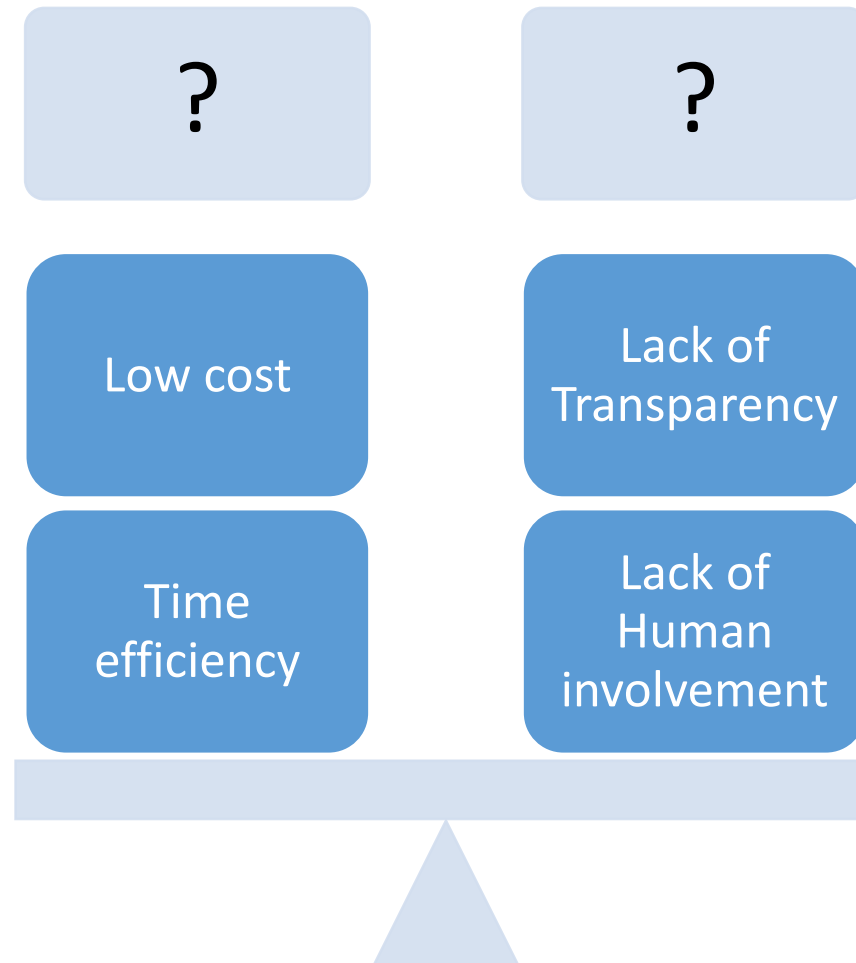
Automated ODR Systems

- The International Association for Artificial Intelligence and Law recognises the dilemma of using automated vs semi-automated systems.
- They have recently put out a call for papers on this topic.

Over the past decade, an increased use of machine learning and other artificial intelligence technologies has significantly increased legal professionals' abilities to efficiently access, process, and analyze digital information.

The International Association for
Artificial Intelligence and Law

ODR and Automated Systems



Specific ODR Systems

VCAT example

- online platform allowing various locations
- parties are not required to travel
- documentation is securely uploaded, stored and accessible
- witnesses can attend a hearing by logging into the online platform.

Family Wizard

- tool that can provide verifiable evidence of how parental communication takes place.
- It supports separating parents to engage in appropriate and civil behaviour whilst assisting with developing parenting planning and maintain a record of parental behaviour.

Limited Use

Extensive Use

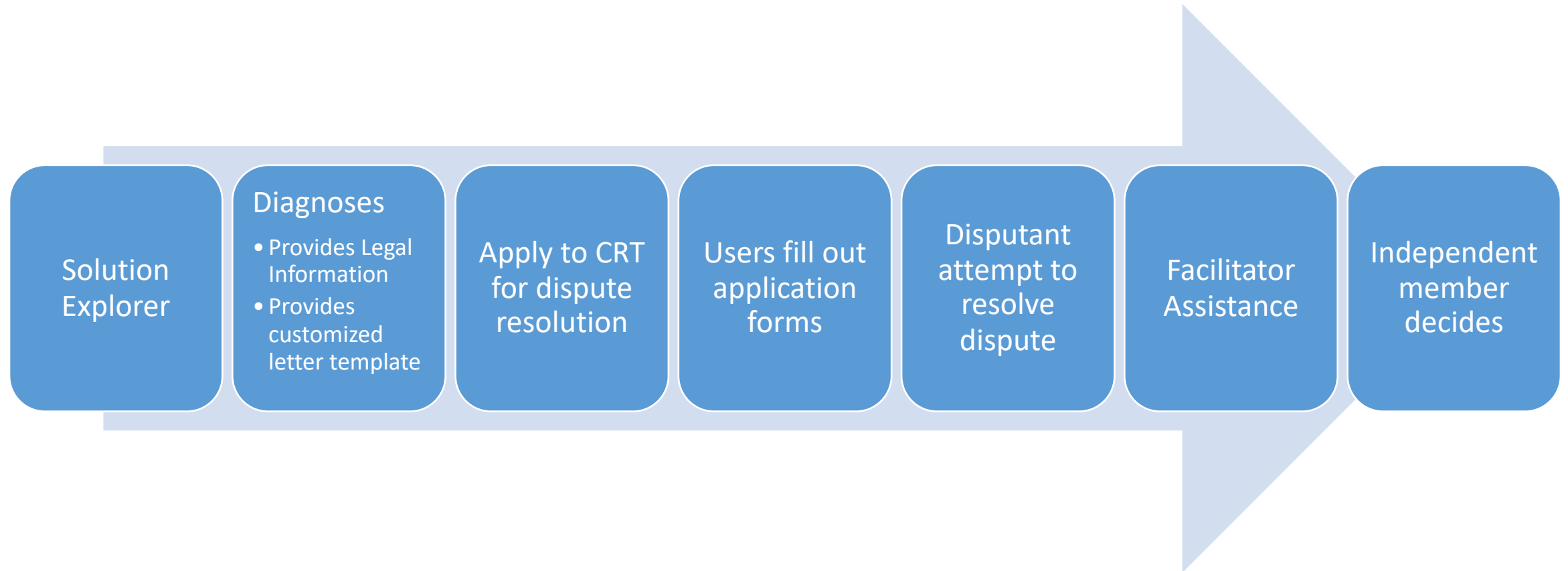
Provide limited support to actually help disputants resolve their conflicts.

The Rechtwijzer System

- The Netherlands universities have been heavily involved in Artificial Intelligence and Law since the 1980s, when the then Dutch Minister of Justice decided to fund a Professor of Law and Technology at every Dutch Law School.
- Rechtwijzer provides support for those engaged in Dutch Family Law conflicts.
- It provides support for entering data and forms, and advice about procedures and outcomes.

Platforms for online dispute resolution are still scarce. Ideally, they integrate the three main stages of problem-solving: self-help, facilitation by a bridge-builder and coming to decisions under supervision of a judge

The British Columbia Civil Resolution Tribunal



The British Columbia Civil Resolution Tribunal (<https://civilresolutionbc.ca/>) currently comes closest to providing a full suite of dispute resolution services, but at a very high price.

Users of ODR



Considerations

Effective

Fair

24/7 Availability

Utilised through social
media



Considerations

Effective

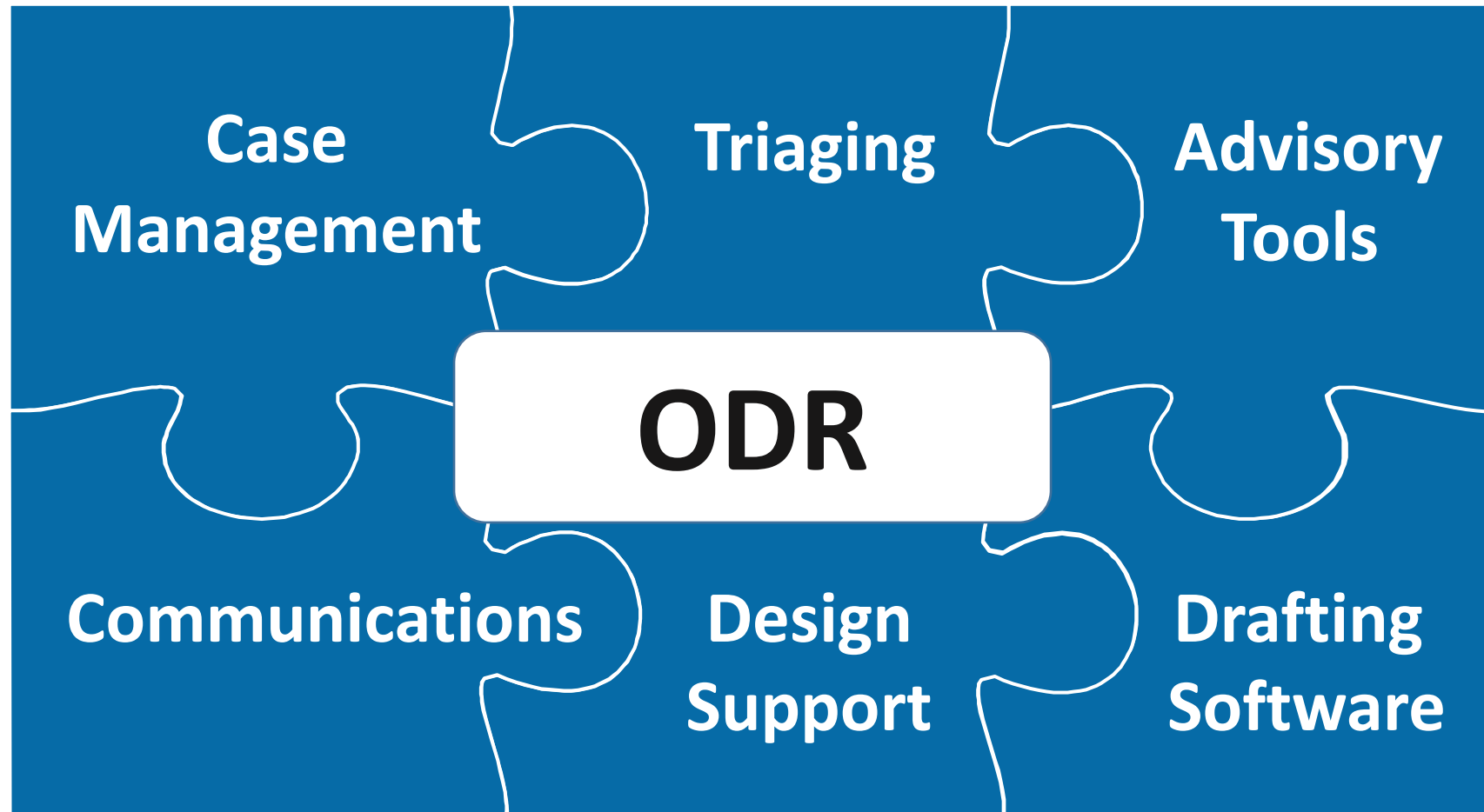
Fair

Cheap

Enhance justice

What does the ideal ODR System look like?

The Ideal Combination



Follows from Lodder, A. and Zeleznikow, J. (2005) in the *The Harvard Negotiation Law Review*

The Ideal ODR system should include

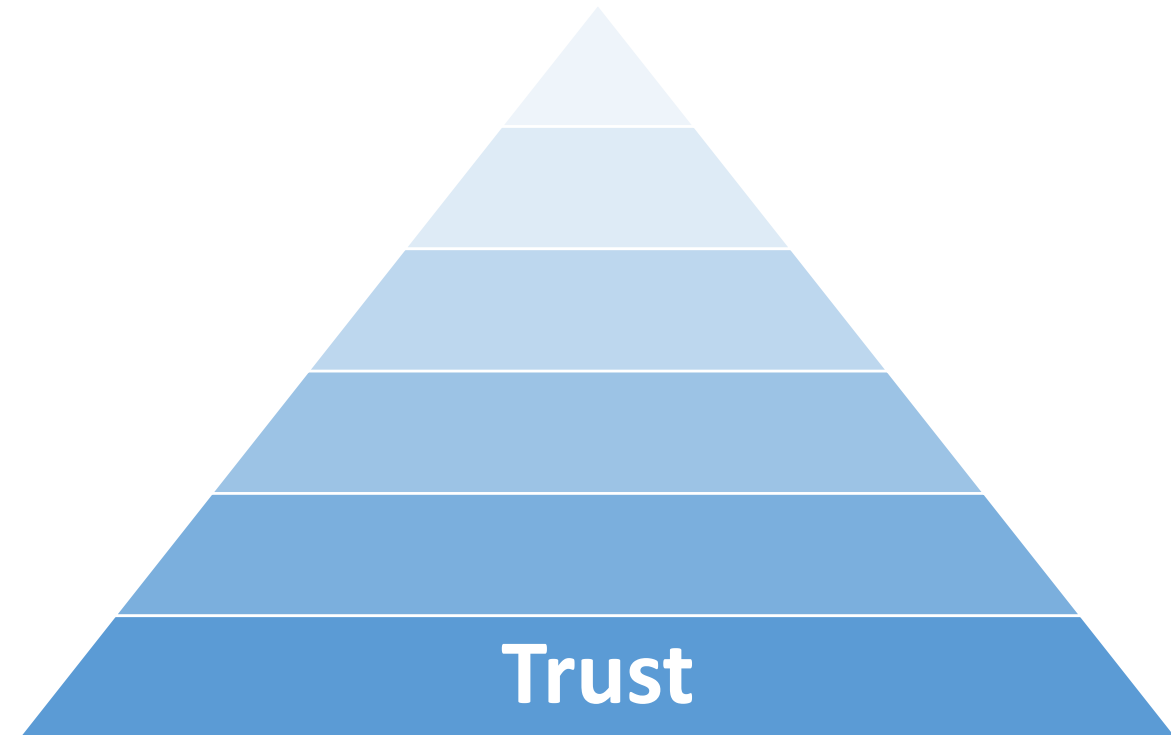
- 1. **Case management**: the system should allow users to enter information, ask them for appropriate data and provide for templates to initiate the dispute;
- 2. **Triaging**: the system should make decisions on how important it is to act in a timely manner and where to send the dispute;
- 3. **Advisory tools**: the system should provide tools for reality testing: these could include books, articles, reports of cases, copies of legislation and videos; there would also be calculators (such as to advise upon child support) and BATNA advisory systems {to inform disputants of the likely outcome (essentially Bargaining in The Shadow of the Law) if the dispute were to be decided by decision-maker: e.g. judge, arbitrator or ombudsman};

The Ideal ODR system should include

- 4. **Communication tools**: for negotiation, mediation, conciliation or facilitation. This could involve shuttle mediation if required. Such a system could provide a trace of the parties conduct during the dispute (e.g. Our Family Wizard);
- 5. **Decision Support Tools**: if the disputants cannot resolve their conflict, software using game theory or artificial intelligence can be used to facilitate trade-offs;
- 6. **Drafting software**: if and once a negotiation is reached, software can be used to draft suitable agreements.
- Of course, no single dispute is likely to require all six processes. However, the development of such a hybrid ODR system would be very significant, but costly

The Foundation of ODR

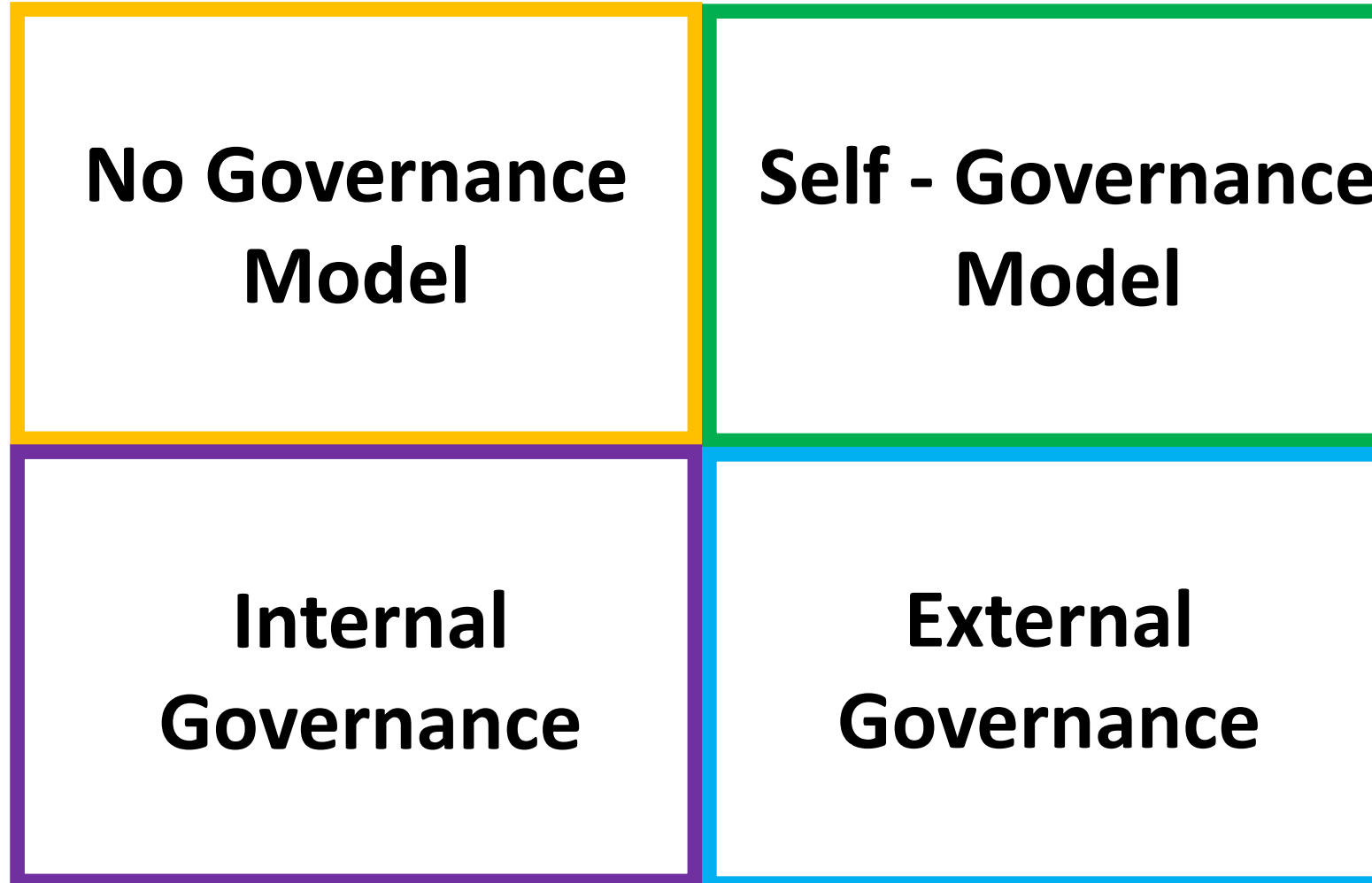
- Users may have very little trust in the processes and hence be reluctant to engage with them.
- ODR generally knows little or no regulation, authority, standards, or monitoring.
- ODR practice is internet-based, any external supervision, such as that stemming from consumer protection laws, is weak, and subject to jurisdictional shortcomings.



Governance in ODR

- Generally speaking, governance involves "Applying policies, proper implementation, and continuous monitoring.
- It is typically done through or by an organization's governing body.
- Accountability, balance of power, and improving the worth and continuance of the firm are the mechanisms of governing.
- ODR generally knows little or no regulation, authority, standards, or monitoring.
- A no-governance state of affairs creates a variety of challenges and risks for both practitioners and clients. Such risks could also threaten the field's reputation, and consequently its growth.

The Ebner/Zelesnikow Governance Models for ODR systems



The Ebner/Zelevnikow Governance Models for ODR

systems

- *A No-Governance Model.* would recognize ODR as a free market activity, and not one that any central body of practitioners chooses to regulate. In this model, actor's norms would be regulated by externally imposed laws; the less external regulation, or the weaker its enforcement, the stronger would be the impact of market forces on actors' activity.
- *A Self-Governance Model.* would recognize that normative, ethical behavior is preferable for all, but would choose not to engage with or monitor individual actors' activities in this regard. A central voluntary entity would recommend best practices, ethical standards, or competency. Such compliance would be completely voluntary. Compliance would be subjectively.
- *An Internal Governance Model.* This model would create structures and organizations to set practice standards, create accreditation schemes, conduct monitoring of practitioners, and enforce compliance. This could follow a guild or association model in which elected representatives interact with external stakeholders to advance policies seen as beneficial to the field, to limit the activity of actors unidentified with the organized field, and to advance the field's status to that of an independent profession.
- *An External Governance Model.* This model would recognize that the field is best organized from the outside. Individual actors in the field could provide expertise to external bodies directly or indirectly regulating ODR activity, and the field as a whole could seek greater external engagement that could increase ODR's adoption and institutionalization across a wide range of industries, jurisdictions, and contexts.

Conclusion

- The pioneers of ODR, saw it as a futuristic idea that could cope with ecommerce disputes.
- For twenty years it remained mired in this domain, with plenty of academic papers but very few systems that were widely used.
- In the past five years, legal communities have finally accepted the benefits of efficiency and access provided by ODR.
- So ODR systems are being constructed for small claims, civil and family law domains.
- Such systems enhance access to justice and provide important opportunities for self-represented litigants.

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