



**Asia-Pacific  
Economic Cooperation**

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Session: 3

## **Artificial Intelligence Driven Online Dispute Resolution and Digital Security**

Submitted by: eBridgeChina Research Institute



**Public-Private Dialogue on Promoting  
Consumer Protection in the Dispute  
Resolution and Redress Mechanisms in E-  
Commerce  
27-29 April 2021**

# AI Driven Online Dispute Resolution and Digital Security

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Institute



# We move Closer to AI,,,

Sofie is first ever Robot that was granted Saudi Arab citizenship and can chat with nature language with anyone at anytime for any topic.



# What Sofie can do:

- Learning vast amount of information
- Review vast amount of question/answers;
- Build her own logical and rational mechanism;
- Empirical assessment;
- Case and Judgment Comparison
- World wide law and regulation checkup
- Rating of best settlements considering all costs;
- Prediction of best sceneior resolution



# Dispute Resolution Evolution

- Dispute resolution online;
- Computer-aided resolution;
- Computer-aided mediation;
- AI Dispute risk alerting;
- Online credit system of resolution enforcement;
- Online Dispute Resolution



# Contents

**Dispute  
Resolution  
GOES ONLINE  
and Digital**

**AI-Enabled ODR**

**AI ODR  
Evolution**

**Digital Security  
and Trust  
Enabler**

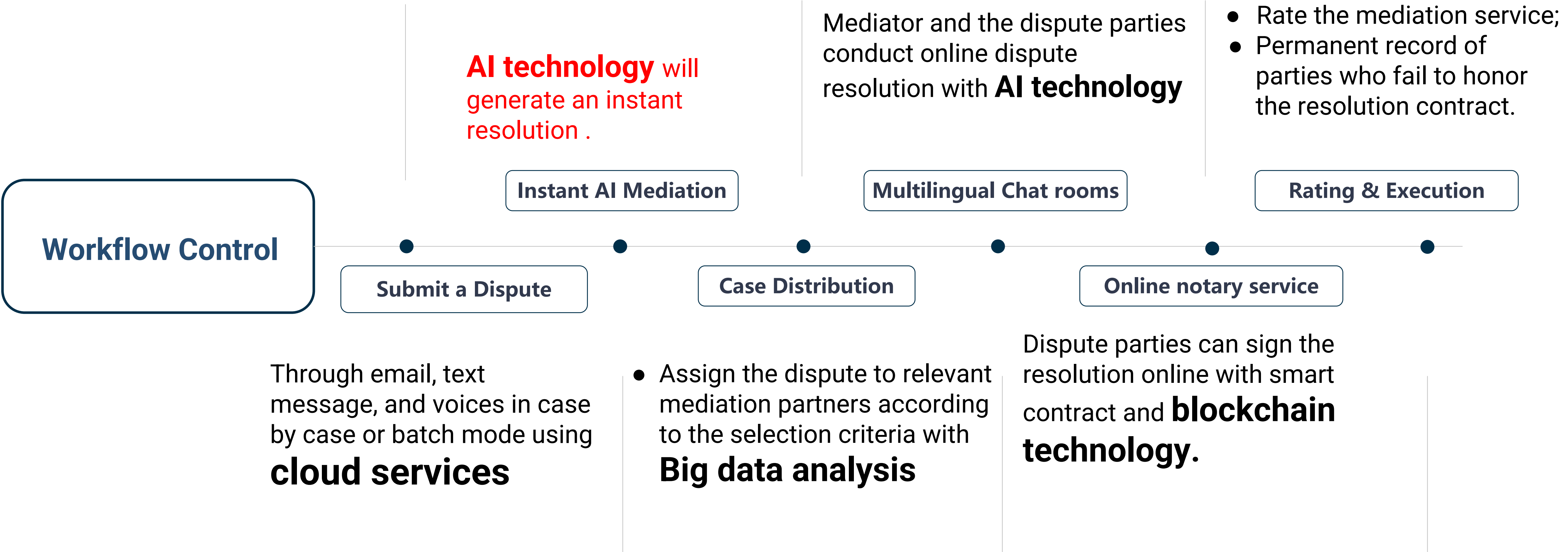
# Dispute Resolution: ONLINE and Digital

## Why and How?



- eCommerce makes disputes across economies.
- eCommerce creates massive micro-disputes
- Mediation time is more important than result
- Computers beat human in knowledge based approach..
- **AI + ODR is the trend.**

# Dispute Resolution: ONLINE and Digital and Technologies



# Contents

**Dispute  
Resolution  
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and Digital**

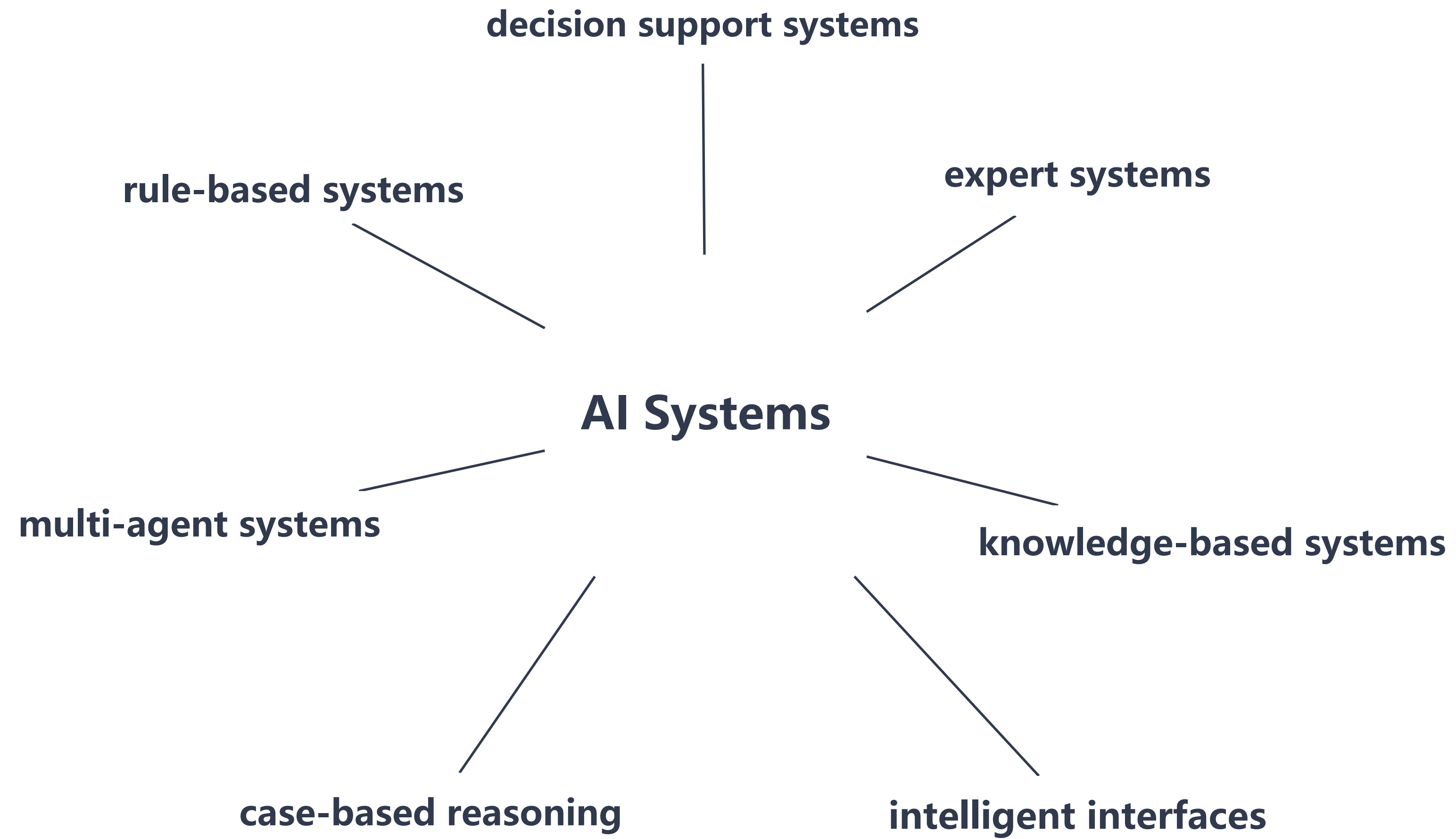
**AI-Enabled ODR**

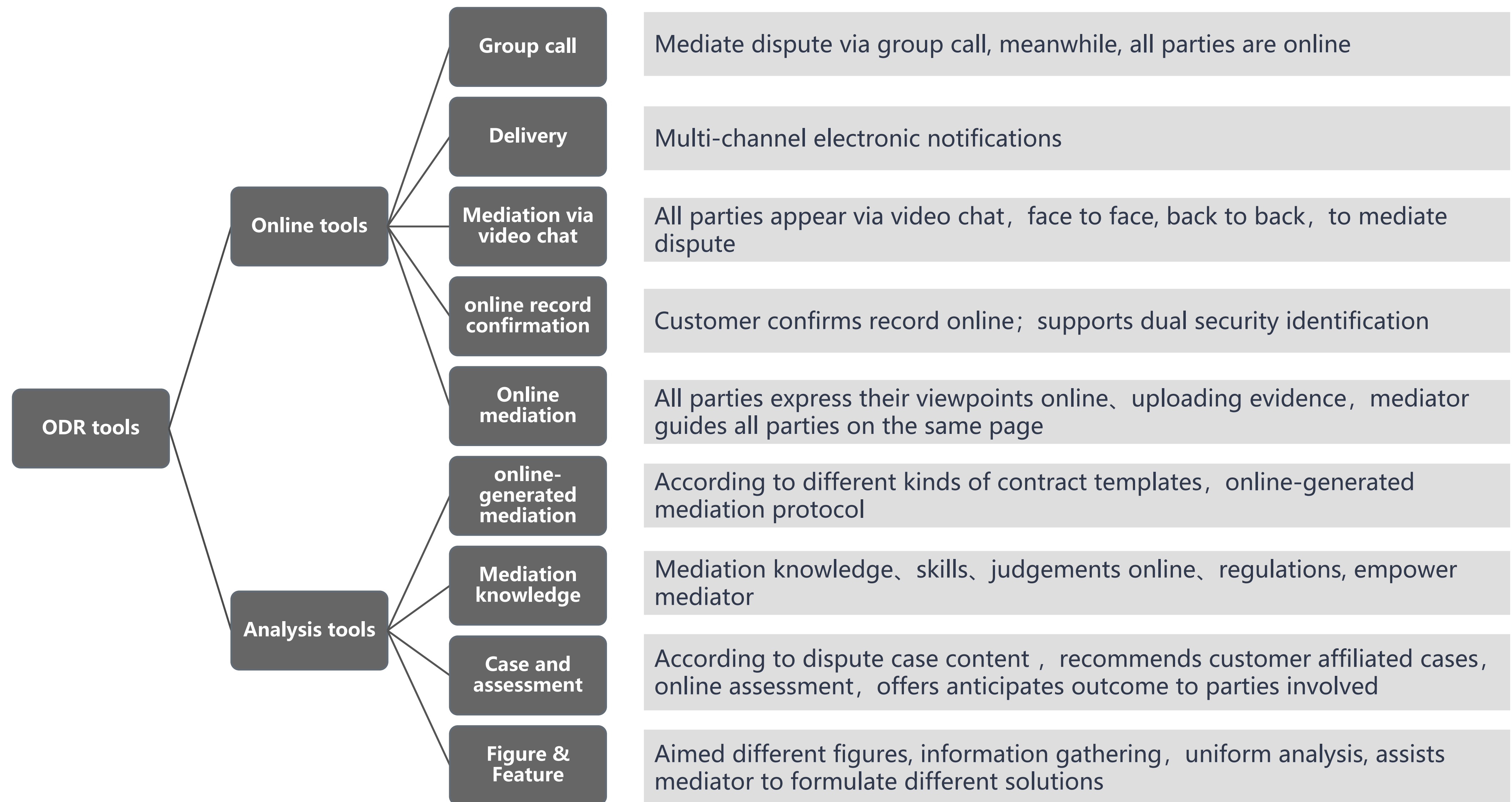
**AI ODR  
Evolution**

**Digital Security  
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# AI Driven ODR

- Whether the introduction of AI will replace a lawyer, arbitrator?
- How is mediation of AI participation different from human operations?
- Why introduce AI in dispute mediation, especially cross-border e-commerce online dispute resolution?
- Machine learning or deep learning will equip AI mediation with more knowledge, data and past resolutions, it can easy overtake the para-legal function.
- Neural network may provide better reasoning or negotiation strategy during the process, As of now, it is lack of passion and humanity .
- AI Driven ODR is necessary for consumer disputes in eCommerce, particularly in cross-border eCommerce.





## Mediation Tools: Diversified Tool-Set, Multi-Prong Attack

# ODR: Challenge to AI

- Current AI

- Best solution;
- Controlling a rule based system
- Focus on next best move
- History data are important
- AI: Artificial Intelligence

- AI for ODR

- No best solution
- Controlling human reaction
- Process is as important as the next resolution
- History data are important?
- AI : Artificial Intuition

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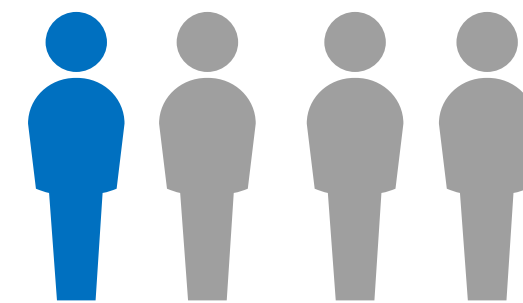
**Digital Security  
and Trust  
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# Definition of AI ODR

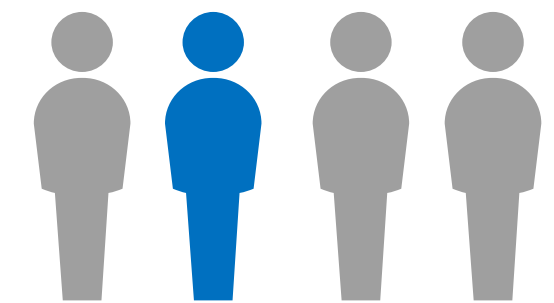
- Definition
  - Adoption of AI technology in the ODR process
- AI ODR is not
  - Computer aided ODR
  - Intelligent ODR
  - ODR with adoption of BI and Big data analytical tools
  - More。

# AI Mediation: Smart to Intelligent

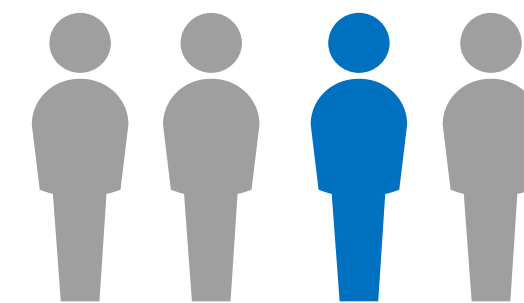
**Level 1:** AI resolution generator



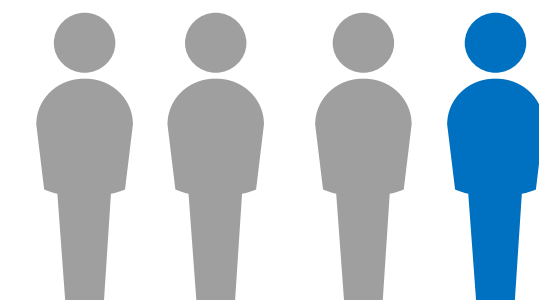
**Level 2:** AI aided mediation



**Level 3:** AI assisted mediator



**Level 4:** AI Mediator



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**AI-Enabled ODR**

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Distributions &  
Information  
Services**

**Digital Security  
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# Possible Risks of AI Mediation

- Privacy infringement
  - Sensitive data leak;
  - Unauthorized access to the database;
- Virus intrusion
  - Unauthorized internet intrusion;
  - Virus attack via internet connection;
  - Data interception via internet
- System risk
  - System availability;
  - Malfunction and unethical algorithm

# Digital Security in AI ODR

## Definition

All security concerns because of the introduction of digital systems to the ODR process

## Scope

Internet security: risk by the interconnection to the public network;

System security: risk of malfunction or improper operation of digital system;

Algorithm security: risk of algorithm ethic principle;

Operator security: risk of operator qualification or honesty;

Trust security: risk of credible data communication to other digital systems or data generation units.

Other risks from the adoption of digital system.

# System Security and Trackability

- Time-Stamped security assurance: mediation process with time-stamped security, every case is unassailable
- Any misconduct will be recorded and traceable permanently
- All the documents should be immutable that makes records tamper proof
- Exceeding efficiency, simple and direct steps to get data registered

评估人：怀王 )

已评

评估内容

纠纷名称：孔雷雷 投诉 深圳市萌驴国际旅行社有限公司 的纠纷

投诉编号：3301000000001201803310564

申请人：孔雷雷

被申请人：深圳市萌驴国际旅行社有限公司

诉求：赔偿

金额：40 人民币

请求内容：( 128974415613746137 ) 消费者3.27在飞猪上定了两间房间，定了188元的房间，商家提供了148元房间

纠纷调解过程

过程

★★★★☆

3.0 -过程一般

结果

★★★★☆

3.0 -结果一般

用语

★★★★★

4.5 -调解用语满意

结案词

★★★★☆

3.0 -结案词一般

评论：不满足期望，有待提升

满意度调研

申请人

★★★★☆

3.0 -满意度一般

被申请人

★★★★☆

3.0 -满意度一般

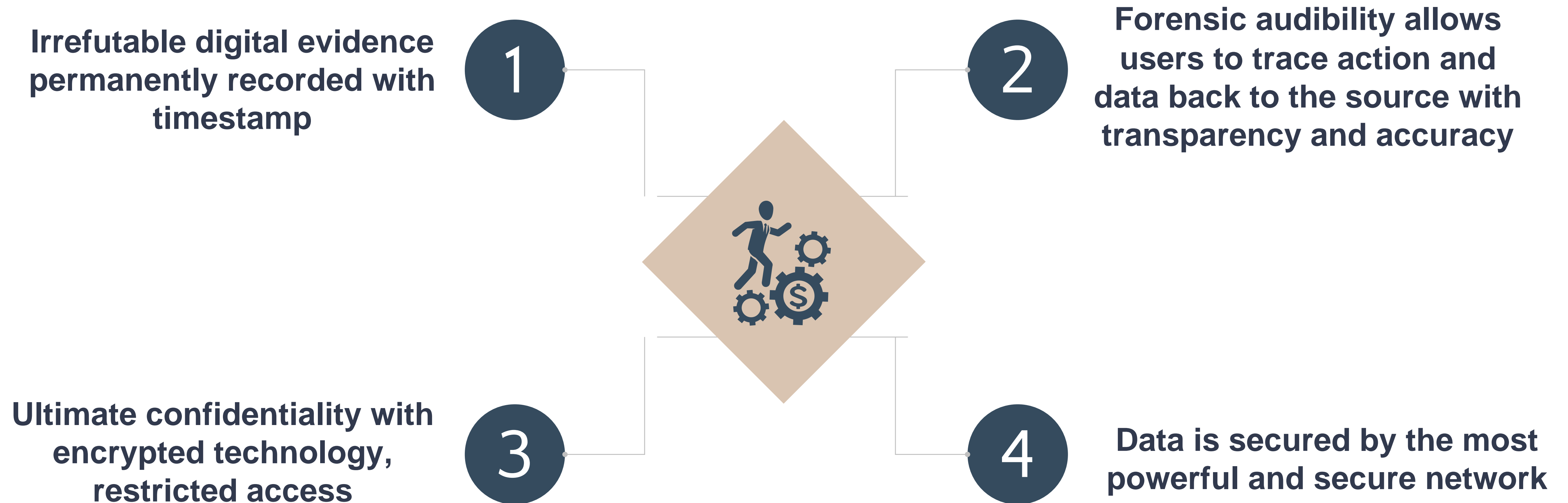
评论：双方当事人对调解满意度没有特殊感受

附件：详细改进意见.xlsx

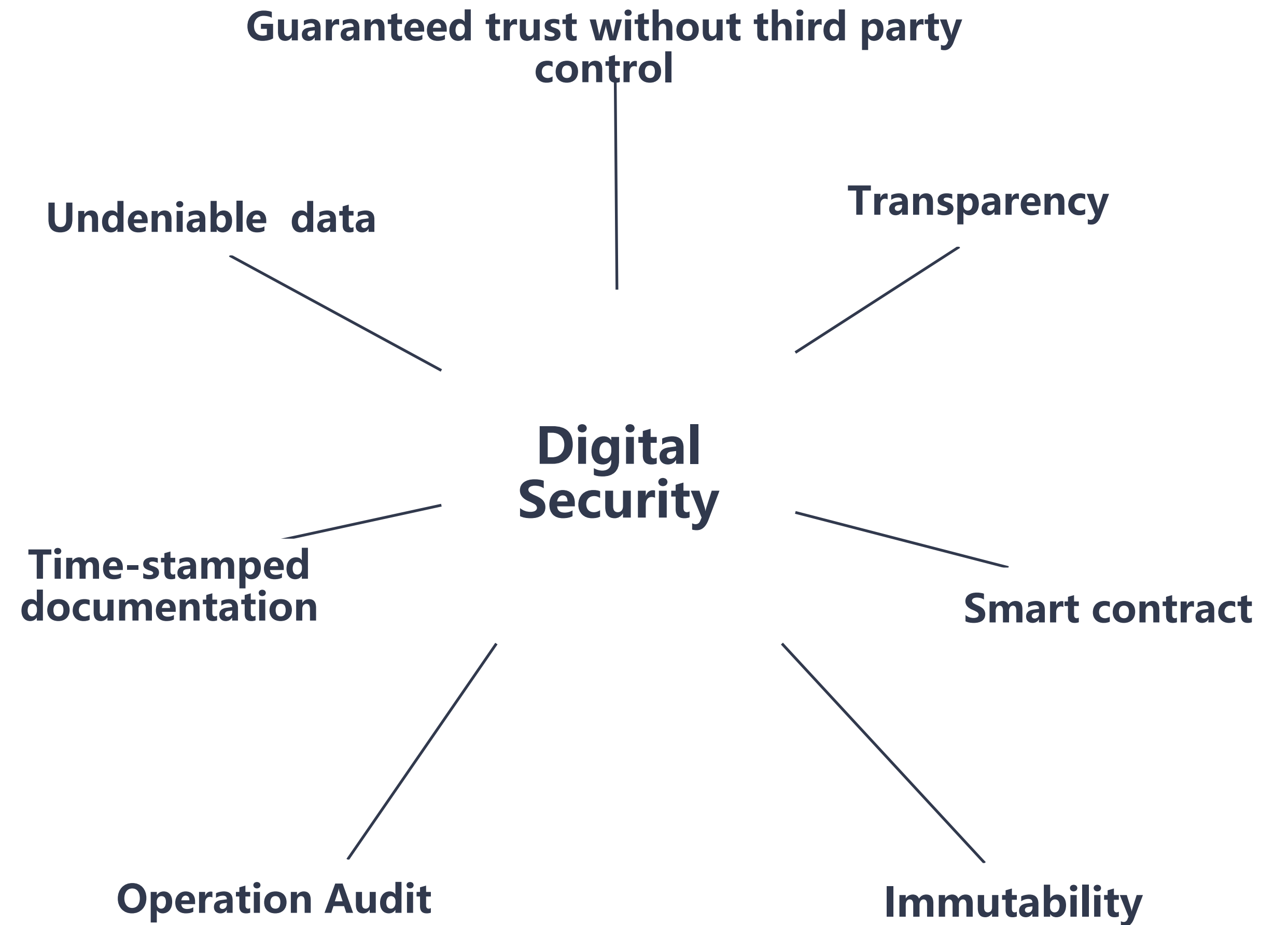
详细改进意见.xlsx

评估

# Data Security and Trustworthy



# Management of Digital Security



## Trend of AI+ODR

1. Current state of ODR is ADR online;
2. Future ODR is AI mediated online dispute resolution;
3. Mediators will train their own AI mediation units to stay in business. Algorithm is the winner; Sofie is the competitor.
4. Success of AI ODR is based on the management of digital Security.

## Technology Infrastructure for AI-ODR.

1. Technology for the management of digital security.
2. Deep learning for training AI to evolve;
3. Big Data for analytic advisory;
4. Social Credit System for enforcement.

# Thanks!

Please feel free to reach out with any questions!