

INTERNATIONAL JOURNAL OF LAW MANAGEMENT & HUMANITIES

[ISSN 2581-5369]

Volume 9 | Issue 3

2026

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AI-Enabled Online Dispute Resolution in China and Singapore: Institutional Design, Procedural Safeguards and Comparative Lessons

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ABSTRACT

Artificial intelligence is now entering online dispute resolution not as a decorative layer of legal technology, but as a functional element in triage, filing, negotiation, evidence management, settlement design and decision support. This paper compares China and Singapore because both jurisdictions have moved decisively towards digital justice, yet their institutional logics differ sharply. China has embedded ODR within a state-led smart-court programme, using internet courts, online mediation, data platforms and AI-assisted judicial management as part of a broader project of procedural standardisation and governance capacity. Singapore has taken a more modular route: online tribunal filing, eNegotiation, eMediation and legally supervised digital court processes are combined with a sophisticated but largely soft-law AI governance environment. The central argument is that AI-enabled ODR should be assessed through a procedural legitimacy test rather than a mere efficiency test. Speed, scale and settlement rates are not enough. A legally defensible system must disclose the role of automation, preserve human accountability, protect personal and dispute data, avoid coercive settlement design, and maintain meaningful routes for review. The comparison shows that China offers scale, integration and procedural routinisation, while Singapore offers clearer data governance, stronger user-facing safeguards and a more cautious posture towards generative AI in court-facing legal work. The paper concludes with a five-part safeguard model for Asian ODR systems: differentiated human oversight, auditable algorithmic assistance, consent-sensitive data processing, procedural explainability and cross-border interoperability.

I. INTRODUCTION

Online dispute resolution (ODR) began as a practical answer to a mismatch: disputes generated by digital markets could not sensibly be handled only through physical, lawyer-heavy, court-

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centred processes. The internet created low-value, high-volume, cross-border conflicts. Traditional litigation was too expensive, too slow and too territorially rigid for many of them. ODR therefore emerged as a process architecture rather than a single institution. It may include online negotiation, online mediation, online arbitration, e-filing, asynchronous hearings, automated case triage, document exchange, identity verification, settlement recording and, in more advanced systems, AI-assisted prediction or decision support.¹

Artificial intelligence changes the problem. A merely online process relocates legal communication onto a digital platform. AI-enabled ODR goes further. It classifies claims, recommends pathways, extracts information from documents, assesses settlement ranges, identifies similar cases, supports mediators or judges, and may shape a party's perception of what is legally realistic. That shift has access-to-justice value, particularly for self-represented users, but it also creates a legitimacy problem: the more a machine participates in the framing of legal choices, the less convincing it becomes to describe technology as a neutral administrative tool.²

The difficulty is not that law must reject automation. That would be sentimental and institutionally unrealistic. Courts and tribunals are already administrative systems. They sort files, filter claims, manage evidence, schedule hearings and standardise outcomes. The question is where the line is drawn between administrative assistance and normative influence. ODR scholarship has long warned against the naive assumption that online processes automatically produce better justice merely because they are quicker or cheaper. When AI is inserted into the process, that warning becomes sharper. Efficiency may reduce delay, but it may also hide unequal bargaining pressure, data asymmetry or opaque recommendation systems.³

China and Singapore make an instructive comparison. China has pursued large-scale judicial digitisation through smart courts, internet courts, online mediation and integrated court-service platforms. Its model is comprehensive, hierarchical and state-driven. Singapore, by contrast, has built a more bounded digital dispute ecosystem: tribunal e-platforms, court-supervised online settlement routes, strong personal data legislation, and non-binding but influential AI governance documents. Both systems aim at accessible justice. They differ in the institutional meaning of access.

¹ Pablo Cortés, *A New Regulatory Framework for Extra-Judicial Consumer Redress: Where We Are and How to Move Forward*, 35(1) LEGAL STUD. 114 (2015).

² John Zeleznikow, *Can Artificial Intelligence and Online Dispute Resolution Enhance Efficiency and Effectiveness in Courts*, 8(2) INT'L J. FOR CT. ADMIN. 30 (2017).

³ Julia Hörnle, *Online Dispute Resolution: The Emperor's New Clothes?*, 17(1) INT'L REV. L. COMPUTERS & TECH. 27 (2003).

This paper advances three claims. First, AI-enabled ODR should be judged by procedural legitimacy, not by technological sophistication alone. Secondly, China's smart-court model shows that AI can routinise judicial administration at scale, but it also reveals the risk of merging dispute resolution with data governance and social control. Thirdly, Singapore's model demonstrates the value of layered safeguards, yet its caution also exposes a limitation: without deeper integration, ODR may remain procedurally useful but analytically shallow. The comparative lesson is therefore not that one model should be copied. It is that AI in ODR must be designed around reviewability, proportionality and human responsibility from the beginning.

II. METHODOLOGY AND SCOPE

The paper uses comparative doctrinal and institutional analysis. It reads ODR not only as a dispute resolution method but as a public legal infrastructure. The materials include Scimago-indexed legal and technology-law scholarship, official court materials, legislation and AI governance documents from China and Singapore. The analysis is not empirical in the statistical sense. It does not claim to measure settlement rates, user satisfaction or algorithmic accuracy. Its object is narrower and more legal: to identify how institutional design allocates authority between platforms, parties, mediators, judges, court administrators and algorithmic systems.

The comparison is deliberately asymmetrical. China's smart-court project is broader than Singapore's online tribunal architecture. Singapore does not have an equivalent state-wide AI court system comparable to China's smart-court programme. That asymmetry is analytically useful. It prevents the inquiry from becoming a superficial feature-by-feature checklist and forces attention to deeper questions of governance: who controls the platform, who verifies the data, who explains the recommendation, and who remains responsible when an AI-supported process affects legal rights.

The term "AI-enabled ODR" is used in a restrained sense. It includes rule-based expert systems, machine learning tools, natural language processing, automated recommendation engines, generative AI used in legal drafting or dispute preparation, and decision-support systems used by courts or neutrals. It does not assume that every digital filing portal is AI. Conversely, it recognises that even non-generative automation can exercise practical influence where it frames claims, filters evidence, suggests settlement bands or nudges parties into particular resolution paths.⁴

⁴ Fahimeh Abedi, John Zeleznikow & Chris Brien, *Developing Regulatory Standards for the Concept of Security in Online Dispute Resolution Systems*, 35(5) COMPUTER L. & SEC. REV. 105328 (2019).

Four questions guide the paper: how are ODR and AI institutionally located in China and Singapore; what legal and policy safeguards govern their use; what procedural risks arise from automation; and what comparative principles can be extracted for future ODR design. The answer developed below is sceptical of both technological optimism and legal conservatism. The proper aim is neither a machine court nor a nostalgic return to paper. It is a procedurally disciplined digital justice system.

III. CONCEPTUAL FRAMEWORK: AI, ODR AND PROCEDURAL LEGITIMACY

ODR performs at least three different functions. At the lowest level, it is a communication channel: it permits filing, document exchange, negotiation and hearing without physical presence. At a second level, it is a process-management tool: it structures deadlines, evidence categories, settlement rounds and mediator appointments. At a third level, it becomes a decision-support environment: it uses data and computation to assist prediction, classification, recommendation or adjudicative reasoning. AI is most sensitive at the third level, but the three levels cannot be cleanly separated. A platform that controls the sequence of interaction may indirectly control bargaining power.

Procedural legitimacy in AI-enabled ODR has five components. The first is notice: parties should know whether a system is merely transmitting information or actively analysing it. The second is contestability: parties must be able to challenge data, classification and AI-shaped assumptions. The third is human responsibility: a mediator, judge, tribunal officer or platform operator must remain accountable for outcomes materially influenced by automation. The fourth is data integrity: identity, evidence, personal data and settlement communications require secure handling. The fifth is proportionality: the intensity of automation must match the legal stakes. A chatbot assisting with form completion is different from a recommendation engine that pressures a litigant to accept a settlement.

Security and trust are not external technical issues. They are conditions of legal validity in ODR. Abedi, Zeleznikow and Brien identify information security, privacy and authentication as core dimensions of ODR security, and that triad remains especially important in AI-supported systems. If a party cannot trust the identity of the other side, the integrity of uploaded evidence, or the confidentiality of communications, the process may be fast but not legally credible.⁵

AI also creates what may be called embedded normativity. The system may appear procedural, yet it embeds assumptions about claim value, risk, credibility, similarity and acceptable

⁵ *Id.*

compromise. Alessa's critique is important because it treats AI in ODR not simply as assistance, but as a technology that can influence the resolution process itself. The danger is not only biased final outcomes. It is the subtler shaping of choices before a dispute ever reaches a human neutral.⁶

The relevant legal standard, therefore, cannot be "does the AI decide the case?" That question is too late. The proper question is whether AI materially affects the party's legal journey. If the answer is yes, safeguards must attach at the point of influence, not merely at the point of final decision.

Table 1: Functional layers of AI-enabled ODR

Layer	Typical tools	Main benefit	Primary legal risk
Communication layer	E-filing, video hearings, document upload, asynchronous messaging	Access across distance and reduced transaction cost	Digital exclusion, authentication failure, confidentiality breach
Process-management layer	Guided forms, triage, scheduling, settlement rounds, mediator routing	Consistency, speed and reduced administrative burden	Hidden nudging, poor claim classification, over-standardisation
Decision-support layer	NLP extraction, similar-case search, settlement prediction, draft reasoning, risk scoring	Better information, reduced delay, consistency support	Opacity, bias, over-reliance, weakened human accountability
Generative layer	Draft pleadings, settlement clauses, summaries, legal explanations	Language assistance and lower entry barriers	Hallucination, false authorities, confidentiality loss, unequal user sophistication

IV. CHINA: SMART COURTS, INTERNET COURTS AND STATE-INTEGRATED ODR

A. Institutional Architecture

China's ODR development cannot be understood as a private-sector legal service innovation alone. It is embedded within the Supreme People's Court's wider smart-court project. The system includes online filing, online service, evidence exchange, online hearings, judgment publication, enforcement information platforms, internet courts and AI-assisted case management. Scholars have correctly described the Chinese model as unusually comprehensive

⁶ H. Alessa, *The Role of Artificial Intelligence in Online Dispute Resolution: A Brief and Critical Overview*, 31(3) INFO. & COMM'NS TECH. L. 319 (2022).

because digitisation was not left to isolated courts or commercial platforms; it was absorbed into an overarching national judicial-modernisation agenda.⁷

The institutional ambition is not merely to make court services available online. The smart-court model attempts to reconfigure the full judicial lifecycle: intake, mediation, filing, hearing, evidence, judgment, enforcement and transparency. Zheng's analysis is useful here because it shows that China's smart courts are part of a broader strategy of capturing opportunities offered by information and communications technology, and that AI is used both to improve formal legal quality and to strengthen hierarchical control. That double character is decisive. The same tools that improve consistency may also consolidate supervision.⁸

Chinese internet courts, beginning with Hangzhou and followed by Beijing and Guangzhou, were built around disputes generated by online transactions and digital conduct. Their jurisdiction has included e-commerce, online services, online copyright, internet finance and related civil-commercial disputes. In procedural terms, they normalise remote filing, online identity verification, electronic evidence and video hearings. In policy terms, they translate the idea that disputes born online should be resolved online.

The Supreme People's Court's 2019 white paper stated that the smart-court system had taken shape by June 2019 and that courts were providing whole-process online services to the public. Even if such official language must be read cautiously, the institutional direction is clear. ODR is not treated as an adjunct to alternative dispute resolution. It is treated as a component of court governance.⁹

B. AI Functions in Chinese ODR

AI in China's dispute resolution ecosystem performs several functions. First, it supports intake and triage. Platforms can guide users through claim categories, jurisdictional requirements and evidence submission. Secondly, it assists judges and court staff through document classification, voice-to-text transcription, similar-case retrieval and drafting support. Thirdly, it participates in enforcement and transparency through data platforms that publish judgments and enforcement information. Fourthly, in some settings it assists mediation by structuring party positions and settlement possibilities.

⁷ Changqing Shi, Tania Sourdin & Bin Li, *The Smart Court: A New Pathway to Justice in China?*, 12(1) INT'L J. FOR CT. ADMIN. 4 (2021).

⁸ George G. Zheng, *China's Grand Design of People's Smart Courts*, 7(3) ASIAN J.L. & SOC'Y 561 (2020).

⁹ Supreme People's Court of the People's Republic of China, *Chinese Courts and Internet Judiciary* (White Paper, Dec. 4, 2019).

This architecture produces real gains. It lowers geographical barriers, reduces procedural friction, and makes high-volume digital disputes more administratively manageable. Shi, Sourdin and Li note that China's smart-court system has promoted easier access to justice, faster dispute resolution and cost savings, while also raising concerns about automated judgments, digital divides, judicial independence and privacy. That tension is the central story of China: scale is achieved, but scale intensifies the need for safeguards.¹⁰

Papagiannas and Junius add a further point. They argue that smart-court reform is justified in official Chinese discourse through fairness, justice, procedural consistency, internal accountability, external visibility and user convenience, while also keeping open channels of control. This is a sober warning. Procedural consistency is valuable. Yet when the same system is designed for administrative visibility and hierarchical supervision, procedural fairness may be measured as system compliance rather than party autonomy.¹¹

The Online Operation Rules of the People's Courts reinforce the integrated character of China's model by recognising online mediation, online case filing, online payment and online service functions within smart service systems. These rules treat online operation as part of ordinary court procedure, not as a temporary pandemic-era accommodation. AI can therefore enter dispute resolution through the back door of case management even where final adjudication remains formally human.¹²

C. Data Governance, Evidence and Control

China's ODR model depends on large judicial data flows. A system that classifies claims, matches similar cases, verifies identity, authenticates electronic evidence and assists enforcement necessarily processes personal information and legal data at scale. The Personal Information Protection Law (PIPL) and Data Security Law therefore matter directly to AI-enabled ODR. They create a legal vocabulary for personal information, sensitive information, data security and cross-border handling. Yet the existence of a data-protection statute does not by itself settle the institutional question: when the court system itself is a major data-processing environment, individual control over legal data is necessarily limited.¹³¹⁴

¹⁰ Shi, Sourdin & Li, *supra* note 7.

¹¹ Straton Papagiannas & Nino Junius, *Fairness and Justice through Automation in China's Smart Courts*, 51 COMPUTER L. & SEC. REV. 105897 (2023).

¹² Supreme People's Court of the People's Republic of China, *Online Operation Rules of the People's Courts* (2021).

¹³ Data Security Law of the People's Republic of China (adopted June 10, 2021, effective Sept. 1, 2021).

¹⁴ Personal Information Protection Law of the People's Republic of China (adopted Aug. 20, 2021, effective Nov. 1, 2021).

Electronic evidence is a particular point of Chinese innovation. Internet courts have used electronic signatures, timestamps, blockchain-based evidence preservation and other tamper-proof verification methods. These tools reduce evidentiary friction in online commerce and intellectual property disputes. But they also encourage evidentiary formalism: evidence that fits the platform's preferred data structure may travel more smoothly than evidence held by less sophisticated users. The danger is not false evidence alone. It is procedural inequality produced by unequal platform literacy.

Guo's work on internet courts is valuable because it does not treat technical innovation as self-legitimizing. It asks how online proceedings can preserve legal ethics, courtroom presence and risk controls between legal and technical systems. That concern should be extended to AI. If legal meaning is partly produced through ritual, confrontation, narrative and the opportunity to be heard, a purely streamlined online pathway may produce closure without felt justice.¹⁵

China's 2025 adjustment of internet-court jurisdiction towards disputes involving data ownership, privacy protection, virtual property infringement and unfair competition in cyberspace shows that the digital jurisdiction is not contracting. It is moving deeper into disputes where data, platforms and rights are entangled. That makes AI governance within ODR more urgent, not less.¹⁶

D. Strengths and Vulnerabilities of the Chinese Model

The Chinese model has three strengths. The first is integration. Litigants do not encounter ODR as a scattered marketplace of optional tools; they encounter it as part of a court-backed pathway. The second is scale. Large populations and high volumes of online transactions require institutions capable of processing disputes without reproducing the cost structure of ordinary litigation. The third is procedural standardisation. Similar disputes can be channelled through similar workflows, and judges can receive similar-case assistance.

The vulnerabilities mirror these strengths. Integration can become centralised opacity. Scale can weaken individualised hearing. Standardisation can flatten legally relevant difference. AI-assisted similar-case retrieval may improve consistency, but it may also tempt decision-makers to treat past data as normative authority without sufficient attention to factual nuance or legal change. This is especially problematic in systems where published judgments may not fully represent the universe of decided cases.

¹⁵ Mingxing Guo, *Internet Court's Challenges and Future in China*, 40 COMPUTER L. & SEC. REV. 105522 (2021).

¹⁶ Supreme People's Court of the People's Republic of China, *New Regulation Adjusts Jurisdiction of Internet Courts* (Oct. 13, 2025).

China therefore offers a powerful but risky model of AI-enabled ODR. It shows what is administratively possible when digital justice is supported by state direction, court hierarchy and platform infrastructure. It also shows why procedural legitimacy cannot be reduced to access, speed or convenience. A system may be accessible and still insufficiently contestable; efficient and still opaque; standardised and still unfair in hard cases.

V. SINGAPORE: TRIBUNAL ODR, AI GOVERNANCE AND CAUTIOUS LEGAL TECHNOLOGY

A. Institutional Architecture

Singapore's ODR ecosystem is less dramatic than China's, but in some respects more legally disciplined. The Community Justice and Tribunals System (CJTS) allows parties to file and manage cases before the Small Claims Tribunals, Employment Claims Tribunals, Community Disputes Resolution Tribunals and the Protection from Harassment Court. The platform allows pre-filing assessment, guided online forms, supporting document upload, court-date selection, case monitoring and online settlement. It is a tribunal-oriented ODR infrastructure rather than a general smart-court system.¹⁷

The most significant feature is that Singapore separates online access from automated adjudication. CJTS helps parties reach and manage legal pathways. It does not, on available public material, purport to replace judicial or tribunal determination with algorithmic decision-making. This restraint matters. It indicates a conscious distinction between digitising procedure and delegating legal judgment.

Singapore's eNegotiation and eMediation pathways operate within CJTS. Parties may attempt to settle online without attending court. eNegotiation allows parties to attempt settlement on their own through online rounds, while eMediation involves an online chat session with a court-appointed mediator. This is a genuine ODR layer. It is not merely electronic filing. It changes the settlement environment by making negotiation asynchronous, structured and court-linked.¹⁸

The Singapore model is therefore best described as supervised modularity. Different digital functions are added to specific dispute categories, and those functions sit within a broader judicial and regulatory culture that values accountability, professional responsibility and administrative clarity. It is not a machine-driven model. It is a managed digital-services model.

¹⁷ Singapore Courts, *Community Justice and Tribunals System (CJTS)* (accessed May 26, 2026).

¹⁸ Singapore Courts, *Settle a Tribunal or Protection from Harassment Dispute Online: eNegotiation or eMediation* (accessed May 26, 2026).

B. AI Governance and Court-Facing Generative AI

Singapore's AI governance environment is unusually mature for a jurisdiction that has not enacted a comprehensive AI statute equivalent to the European Union's AI Act. Its Model AI Governance Framework adopts an accountability-based approach and emphasises human-centric deployment, internal governance, operations management and stakeholder communication. The later generative AI framework adds attention to foundation-model risks, testing, safety, security and accountability. These instruments are soft law, but they shape institutional expectations.¹⁹²⁰

The Singapore Courts' Guide on the Use of Generative Artificial Intelligence Tools by Court Users, applicable from 1 October 2024, is particularly relevant because it applies to Supreme Court, State Courts, tribunal and Family Justice Court matters. It does not prohibit generative AI. It places responsibility on court users to verify accuracy, truth and appropriateness, and it maintains that AI use does not displace existing legal, evidential or professional obligations. This is a sensible but limited approach. It controls AI at the point of court-facing output, not necessarily at the deeper level of platform design.²¹

The Ministry of Law's 2026 Guide for Using Generative AI in the Legal Sector develops this approach further. It stresses human oversight, scrutiny of hallucinations and bias, auditability, explainability and responsible disclosure. These are exactly the concepts that future AI-enabled ODR systems will need. The guide is aimed at legal work broadly, but its implications for ODR are direct: if a lawyer or self-represented person uses AI to prepare a claim, evaluate a settlement or draft terms, procedural fairness depends on verification and accountability.²²

Singapore's position is therefore pragmatic. It does not ban AI because a ban would be futile and economically irrational. It does not romanticise AI either. The court-facing guidance treats AI as a tool whose output remains the user's responsibility. For ODR, this principle should be extended from users to institutions. A tribunal platform that deploys AI should not be allowed to hide behind the fiction that the party chose the outcome freely if the platform's architecture meaningfully shaped that choice.

C. Data Protection and Dispute Data

¹⁹ AI Verify Foundation & Infocomm Media Development Authority, *Model AI Governance Framework for Generative AI* (May 2024).

²⁰ Personal Data Protection Commission & Infocomm Media Development Authority, *Model Artificial Intelligence Governance Framework* (2d ed. 2020).

²¹ Singapore Courts, *Guide on the Use of Generative Artificial Intelligence Tools by Court Users* (effective Oct. 1, 2024).

²² Ministry of Law, Singapore, *Guide for Using Generative AI in the Legal Sector* (Mar. 6, 2026).

Singapore's Personal Data Protection Act 2012 gives the ODR environment a clearer statutory background than jurisdictions relying only on sectoral or contractual privacy controls. The Act recognises both the individual's interest in personal data protection and the organisational need to collect, use or disclose personal data for appropriate purposes. In dispute resolution, that balance is central. A platform must collect enough information to identify parties, understand claims, verify documents and manage settlement. It must not convert dispute participation into open-ended data extraction.²³

Data protection in ODR is not reducible to privacy notice drafting. It includes purpose limitation, accuracy, protection, retention, transfer, breach notification and accountability. If AI is used to analyse dispute narratives or produce recommendations, the platform must decide whether those data are used only for the individual case, for model improvement, for analytics, or for institutional reporting. Each use has different legitimacy requirements. The fact that a user wants cheap dispute resolution does not imply consent to broad secondary use of legal data. Clifford and Van Der Sype's work on online settlement of data protection disputes is instructive because it connects ODR with the special sensitivity of personal data conflicts. Singapore's PDPA architecture strengthens the baseline conditions for ODR because it gives users a legal vocabulary through which to challenge misuse, seek correction and demand accountability. Even so, AI-generated analytics can complicate the picture. A settlement recommendation may be produced from patterns in past disputes, but the user may not know what data informed it or whether the data reflect structural imbalance.²⁴

D. Strengths and Vulnerabilities of the Singapore Model

Singapore's strengths are clarity, boundedness and accountability. CJTS is tied to identifiable tribunals. eNegotiation and eMediation are transparent enough for users to understand the difference between self-directed settlement and mediator-assisted settlement. The AI guidance documents reinforce professional responsibility rather than transferring responsibility to the tool. The PDPA supplies a statutory discipline for personal data processing.

The vulnerabilities are different from China's. Singapore's model may be too cautious to realise the full potential of AI-assisted ODR. It digitises access and settlement, but it has not publicly moved towards deeper AI-assisted legal triage, outcome analytics or settlement optimisation within tribunals. That may be wise at present. Yet as private legaltech tools become more

²³ Personal Data Protection Act 2012 (Singapore, 2020 Rev. Ed.) §§ 3, 13-26, 48G-48O.

²⁴ Damian Clifford & Yung Shin Van Der Sype, *Online Dispute Resolution: Settling Data Protection Disputes in a Digital World of Customers*, 32(2) COMPUTER L. & SEC. REV. 272 (2016).

capable, parties with resources may use advanced AI outside the official platform while ordinary users rely only on guided forms. Inequality can therefore arise not from state automation, but from asymmetric private automation.

The comparative point is sharp. China risks excessive institutional integration. Singapore risks fragmented innovation. A fair ODR system needs enough integration to protect users, and enough restraint to prevent the platform from becoming the hidden judge.

Table 2: China and Singapore compared

Issue	China	Singapore	Comparative implication
Institutional lead	Supreme People's Court and state-led smart-court programme	Courts, tribunals, PDPC/IMDA and legal-sector guidance	China centralises digital justice; Singapore layers institutional controls
Core ODR site	Internet courts, online mediation, mobile courts, smart service systems	CJTS, eNegotiation, eMediation, tribunal e-services	China integrates ODR into judicial modernisation; Singapore focuses on accessible tribunal pathways
AI function	Case triage, similar-case search, document assistance, speech recognition, enforcement analytics, decision support	Court-user GenAI governance, legal-sector guidance, potential AI support around legal work	China deploys AI inside the justice system; Singapore regulates AI use around legal work more cautiously
Data regime	PIPL, Data Security Law, court data infrastructures	PDPA, AI governance frameworks, sector guidance	Singapore offers clearer user-facing data discipline; China has broader state data-control capacity
Main risk	Opacity, over-standardisation, supervision through data, weak contestability	Private AI asymmetry, soft-law limits, under-integrated ODR analytics	Both require procedural explainability and auditability

VI. COMPARATIVE ANALYSIS: WHAT THE TWO MODELS REVEAL

A. Efficiency Is Not the Same as Justice

Both China and Singapore show that ODR can reduce cost and delay. That is important, but it is not enough. A dispute resolution system does not become just because it is available on a phone. The legal question is whether the process gives parties a fair opportunity to understand,

present, contest and resolve their claims. AI can support these values, but it can also compress them.

China's efficiency gains are linked to integration and scale. Singapore's efficiency gains are linked to guided access and online settlement pathways. Each route has a different legitimacy problem. In China, the risk is that system efficiency becomes a governmental value overriding individual contestation. In Singapore, the risk is that official ODR remains administratively useful while more consequential AI decision-support develops outside formal public oversight. This is why procedural design must distinguish between settlement support and settlement pressure. Online negotiation may empower parties by reducing embarrassment, travel and confrontation. But a settlement recommendation generated from opaque data may pressure a party to compromise without understanding whether the recommendation reflects law, platform averages, risk appetite or administrative convenience.

B. Public ODR and Private ODR

The public-private divide is unstable in ODR. Many disputes begin on private platforms, move to private complaint mechanisms, escalate to mediation and only later reach court. China has blurred this divide through cooperation between courts and technology platforms, particularly in e-commerce and electronic evidence contexts. Singapore has maintained clearer institutional boundaries, though private AI tools used by lawyers and litigants increasingly affect court-facing work.

The lesson is that regulation should follow function rather than institutional label. If a private platform performs triage, recommends settlement, ranks claims or produces binding outcomes, it should be subject to ODR safeguards even if it is not formally a court. If a court platform uses private technology vendors to process legal data, public-law standards should attach even though the software is privately developed. The legal risk lies in influence, not ownership.

Sampani's analysis of international harmonisation is useful because cross-border ODR cannot rely solely on domestic procedural assumptions. Singapore, as a dispute resolution hub, has strong reasons to align ODR standards with international expectations. China, as a massive digital market, has strong reasons to build interoperable standards for e-commerce and platform disputes. Both should treat ODR as part of transnational digital justice, not as a purely domestic administrative reform.²⁵

²⁵ Maria Sampani, *Online Dispute Resolution and the Role of International Harmonization: Lessons from UNCITRAL*, 26(3) UNIF. L. REV. 512 (2021).

C. AI Risk: Automation, Generative AI and Decision Support

AI risk in ODR should be classified by effect. Low-risk tools include spelling correction, document formatting, scheduling and simple information retrieval. Medium-risk tools include guided forms, claim classification, legal information chatbots and mediator support. High-risk tools include settlement prediction, credibility scoring, similar-case outcome ranking, draft awards, automated entitlement calculation and tools that influence adjudicative reasoning. Generative AI can appear low-risk when used for drafting, but becomes high-risk when it invents facts, authorities or settlement positions.

Vilalta Nicuesa and Gili Saldaña's work on AI-driven ADR and ODR is valuable because it treats AI dispute resolution as a category requiring legal classification rather than casual technological adoption. The same discipline is needed in Asia. A single phrase like "AI in ODR" hides very different levels of legal consequence. A chatbot giving neutral filing instructions is not equivalent to an engine that predicts liability and proposes a monetary settlement.²⁶

China's risk is high-system automation. Singapore's risk is distributed user-side automation. The former can be audited only if the state accepts transparency and independent evaluation. The latter can be controlled only if courts, regulators and professional bodies insist that AI-assisted legal work remains verifiable and accountable. Neither model can solve the problem by saying that final decisions are still made by humans. Human rubber-stamping of machine-shaped pathways is not meaningful oversight.

Table 3: Proposed safeguard model for AI-enabled ODR

Safeguard	Minimum requirement	Reason
AI role disclosure	Users must know when AI classifies, recommends, drafts or predicts	Notice is the first condition of procedural autonomy
Human review by risk tier	Higher-stakes or rights-sensitive outputs require human validation before reliance	Avoids rubber-stamping and preserves accountability
Data purpose limitation	Dispute data used for AI training or analytics must have a defined lawful basis	ODR participation should not become hidden data extraction
Contestability	Users must be able to challenge classification, factual extraction and recommendation logic	Corrects machine error before it hardens into settlement pressure

²⁶ Aura Esther Vilalta Nicuesa & Marian Gili Saldaña, *AI-Driven Alternative and Online Dispute Resolution in the European Union: An Analysis of the Legal Framework and a Proposed Categorization*, 57 COMPUTER L. & SEC. REV. 106145 (2025).

Safeguard	Minimum requirement	Reason
Auditability	Platforms should maintain logs, model version records and outcome-review mechanisms	Permits regulator, court or institutional review of systemic error
Accessibility testing	Interfaces must be tested for language, disability, literacy and device limitations	Prevents digital access from becoming digital exclusion

VII. RISKS REQUIRING DOCTRINAL ATTENTION

A. Due Process and the Right to Be Heard

The right to be heard is not satisfied merely because a party typed information into an online box. The user must understand what information is legally relevant, how it will be used, and whether missing information can be added later. AI triage may simplify the user's burden, but it may also narrow the dispute too early. A consumer claim may appear to be a refund dispute, while legally it may raise misrepresentation, unfair contract terms, data misuse or harassment. Poor classification can shrink rights.

A due process standard for AI-enabled ODR should therefore require flexible correction. Parties must be allowed to amend claim categories, add facts, dispute AI summaries and request human assistance. The platform should not treat its initial diagnosis as procedural destiny. This is especially important for self-represented parties who may accept an AI-generated framing as legally authoritative even when it is only administrative.

China's integrated model has the advantage of routing disputes efficiently, but it must guard against over-standardisation. Singapore's CJTS model has the advantage of guided access, but as AI tools enter legal preparation, it must ensure that unrepresented users are not disadvantaged by inaccurate AI drafting or unequal access to paid legal analytics.

B. Consent and Coercion in Online Settlement

ODR is often praised for increasing settlement. That praise is too quick. Settlement is valuable when it reflects informed, voluntary and fair compromise. It is problematic when produced by exhaustion, asymmetric information or design pressure. AI can intensify all three. A system may repeatedly present a recommended figure, warn of low success probability, or rank options in a way that nudges a weaker party towards acceptance.

The law should therefore ask whether settlement consent was procedurally clean. Were the parties told how recommendations were generated? Did they have access to legal information? Could they pause, seek advice or reject AI suggestions without procedural penalty? Was the

system calibrated to avoid pressuring vulnerable users? These questions are not anti-technology. They are the conditions under which digital settlement can be treated as legally respectable.

Singapore's eNegotiation and eMediation provide a useful distinction. Self-directed online negotiation and mediator-assisted online settlement should not be collapsed. Where AI is added, a third distinction becomes necessary: AI-suggested settlement. That category should trigger disclosure and review requirements because the recommendation may carry institutional authority in the eyes of lay users.

C. Explainability and Reasons

Explainability in ODR does not always mean exposing source code. For most legal users, source code would be meaningless. What is required is procedural explainability: what the system did, what data it used, what legal or factual criteria mattered, and what human actor checked the output. In high-stakes disputes, reasons must be sufficient to permit appeal, review or refusal of settlement.

China's similar-case and judgment-assistance tools show the appeal of algorithmic consistency. Yet similar cases are legally useful only when similarity is reasoned. Factual resemblance is not enough. The system must identify which facts are legally material and which are superficial. Otherwise AI may reproduce shallow pattern-matching as legal rationality.

Singapore's guidance for generative AI places responsibility on users to verify accuracy. That approach works for court documents. It is insufficient for institutional ODR systems. If a public platform uses AI to assist settlement or triage, responsibility must rest with the institution deploying the tool, not merely with the user affected by it.

D. Bias, Language and Digital Exclusion

Bias in ODR is not only demographic bias. It may be linguistic, procedural, economic or behavioural. A system trained on past settlements may learn the bargaining weakness of consumers rather than the legal merit of claims. A multilingual chatbot may perform better for standard English than for dialect, mixed-language submissions or legally unsophisticated narratives. A mobile-first interface may increase access for some users and exclude those with disability, low literacy or unstable connectivity.

China's large-scale deployment makes digital divide concerns especially serious. Singapore's smaller and more service-oriented system may manage exclusion more easily, but it still must address litigants who lack legal confidence, language fluency or technical skill. ODR should be

designed around assisted digital access: help desks, plain-language explanations, interpreter support, offline fallbacks and escalation to human officers.

AI fairness audits should therefore test actual user pathways, not only model performance. It is possible for a model to be statistically accurate and procedurally unfair because users cannot understand or contest its output.

VIII. POLICY RECOMMENDATIONS

First, China and Singapore should adopt a risk-tiered classification of AI in ODR. Low-risk tools may require ordinary cybersecurity and usability controls. Medium-risk tools should require disclosure, logging and human assistance. High-risk tools that influence settlement value, legal entitlement or adjudicative reasoning should require independent audit, human validation and an appeal or review pathway.

Secondly, ODR platforms should maintain an automation register. The register should identify AI functions, data categories, model purpose, human oversight mechanisms, audit frequency and user-facing explanations. This need not expose trade secrets. It should disclose enough for courts, regulators and users to understand the role of automation in the legal process.

Thirdly, consent in AI-supported online settlement should be strengthened. Parties should be told whether a settlement range is generated by AI, based on past outcomes, based on legal rules or merely based on administrative heuristics. Vulnerable users should be offered human assistance before accepting settlement in legally significant disputes.

Fourthly, data protection rules should be adapted to dispute data. Legal disputes contain financial, familial, employment, commercial, reputational and sometimes health information. ODR data should not be repurposed for model training, institutional analytics or vendor development without a specific lawful basis, retention limit and security safeguard.

Fifthly, both jurisdictions should invest in cross-border ODR standards. The problems most suited to ODR, namely e-commerce, platform work, digital services, data disputes and online harassment, often cross borders. International harmonisation should focus on minimum procedural guarantees: identity verification, notice, opportunity to be heard, neutral participation, enforceability, confidentiality and review.

Finally, AI-enabled ODR should preserve a human escalation right. Not every dispute needs a full hearing. Not every user wants a judge. But where a party plausibly claims that AI classification, settlement pressure or data error affected the process, a human review route

should exist. Without such a route, ODR becomes administrative closure rather than dispute resolution.

IX. CONCLUSION

China and Singapore represent two different futures for AI-enabled ODR. China shows the power of integrated digital courts. Its smart-court and internet-court architecture demonstrates how online filing, evidence, mediation, hearings, decision support and enforcement can be pulled into a single state-led system. The achievement is significant. So are the risks. The more comprehensive the system, the more it must answer questions of transparency, contestability, judicial independence and data control.

Singapore shows the strength of disciplined incrementalism. CJTS, eNegotiation and eMediation improve access while preserving recognisable tribunal accountability. The PDPA and AI governance materials create a mature vocabulary for responsible legal technology. Yet caution has its own problem. If official systems do not develop accountable AI support, private and unequal AI assistance may fill the gap.

The central lesson is not that Asia should choose between China's scale and Singapore's restraint. The better lesson is institutional: AI-enabled ODR must be designed around procedural legitimacy before it is scaled. A fair system must tell users when AI is used, allow them to contest machine-shaped assumptions, protect their data, preserve human accountability and keep meaningful review open. ODR can improve access to justice. AI can strengthen ODR. But neither technology nor access is an independent legal value. The value lies in a process that resolves disputes without quietly diminishing the dignity, autonomy and rights of the parties who enter it.

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