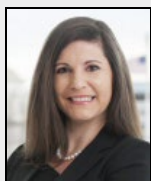


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The Determination of the Seat in Blockchain-based Arbitration: The Quest for the Closest Connection in a Decentralised Legal Vacuum by S. Hourani and Y. Farah MCI Arb, SFHEA

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The Determination of the Seat in Blockchain-based Arbitration: The Quest for the Closest Connection in a Decentralised Legal Vacuum

Sara Hourani* and Youseph Farah**

I. Introduction

It has been stated by arbitration practitioners that three main categories of disputes related to the web3 environment might end up in arbitration: hackings, off-chain contract disputes, and on-chain disputes resolved via blockchain or decentralised justice protocols.¹ The types of disputes that also arise from the web3 environment include claims involving oversights by exchanges, as well as claims arising out of financing agreements and joint venture agreements in the crypto ecosystem, as these transactions often include arbitration agreements in their terms and conditions.²

Cryptoasset arbitrations which are conducted under conventional arbitration procedures already pose unique challenges such as poorly drafted contracts and procedural complexities especially those related to low-value disputes.³ Further procedural complexities are found within on-chain arbitrations, otherwise referred to as blockchain-based arbitrations, and include issues regarding the applicable law to the blockchain-based arbitration procedure. This is as blockchain-based arbitration procedures which are carried out by decentralised justice protocols such as Kleros or Jur do not mention the applicable *lex arbitri* to the procedure or make any reference to the arbitral seat.

These procedures have given rise to questions regarding the applicable law to them in the absence of the determination of a clear seat of arbitration due to the decentralised feature of the system they exist on. This is namely in cases where the parties or the arbitral procedure do not make any mention of the arbitral seat or any jurisdiction related to it. In the classical paradigm, the *lex arbitri* is territorially anchored in the judicial seat, thereby providing procedural guarantees and setting the boundaries for party autonomy. By contrast, decentralised blockchain procedures as will be seen often are anchored in a decentralised system without a clear link to a territory. This leads to interrogations on the extent to which these procedures come under the remit of the New York Convention on the Recognition and Enforcement of Foreign Awards of 1958.⁴

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¹ Iulia Anghelescu, “2024 PAW: All You Need to Know about Arbitration and Crypto Assets,” Kluwer Arbitration Blog, 20th March 2024 <<https://legalblogs.wolterskluwer.com/arbitration-blog/2024-paw-all-you-need-to-know-about-arbitration-and-crypto-assets/>> accessed 23 December 2025.

² Ibid.

³ Ibid.

⁴ Convention on the Recognition and Enforcement of Foreign Arbitral Awards (adopted 10 June 1958, entered into force 7 June 1959) 330 UNTS 38 (New York Convention 1958).

The article thus examines whether any limits exist to this purported exclusion of the law through decentralisation and whether an applicable *lex arbitri* can or must be identified. The enquiry is particularly important because the *lex arbitri* empowers national courts at the seat to intervene in or support the arbitral process, such as by granting interim measures, ensuring procedural fairness, resolving disputes concerning the tribunal's substantive jurisdiction, or reviewing challenges to the validity of the arbitral award. If blockchain-based arbitration proceeds without a seat, it becomes unclear whether courts have any supervisory or enforcement role at all. Also, courts at the place of where recognition and/or enforcement of the arbitral award is sought would look for a supervising legal framework to the procedure in order to understand whether they would be able to recognise and enforce the award under the New York Convention. The implications for legal certainty, and procedural efficiency are thus profound.

Identifying the *lex arbitri* in this decentralised context is exceptionally challenging, because classical conflict-of-laws rules relating to selecting the law governing a contract, or even the international jurisdiction of the court, focus on resolving conflicts in substantive matters, using connecting factors, presumptions, or general principles to identify the law most closely connected to those matters, such factors often anchored in a territorial link between the applicable law and the place of performance. The paper nevertheless attempts to identify whether the closest connection can be established for the determination of the *lex arbitri* applicable to blockchain-based arbitration procedures. The paper aims to offer an up to date analysis and answers on the complex question of the determination of the seat of arbitration in the context of the legal vacuum caused by the decentralised architecture of the blockchain.

To do so the paper first delves into an explanation of blockchain-based arbitration and its system of self-governance by the law of code in section II. Section III then analyses the current position of the law on the determination of the *lex arbitri* in international arbitration and the current gaps in the law regarding the closest connection for the determination of the arbitral seat in blockchain-based arbitration. Sections IV and V explore the recent case law and policy developments on the determination of the relevant forum to hear disputes arising from web3-based transactions, and Section VI conducts an analysis of the potential impact of these recent developments on finding the closest connection in blockchain-based arbitration procedures.

II. Introduction to the Concept of Blockchain-based Arbitration and Self-governance

A. An Overview of Blockchain-based Dispute Resolution:

Private adjudication in the blockchain environment was first proposed in the bitcoin whitepaper to resolve disputes arising from the peer-to-peer bitcoin cash system.⁵ The whitepaper proposed an escrow mechanism to be implemented in case of dispute between parties to a bitcoin transaction. The funds would be stored in the escrow and the parties would not be able to withdraw the funds until the adjudicator issues a decision for the resolution of the dispute.⁶ This dispute resolution system later evolved into the creation of blockchain-based arbitration procedures to provide dispute resolution for cryptocurrency and cryptoasset disputes. These

⁵ Satoshi Nakamoto, "Bitcoin: A Peer-to-Peer Electronic Cash System," <<https://bitcointalk.org/bitcoin.pdf>> accessed 20 December 2025.

⁶ Pietro Ortolani, "Blockchain Technology and Arbitration," in Pietro Ortolani, Andre Janssen, et al. (eds), *International Arbitration and Technology* (Wolters Kluwer 2022), 239-252.

are platforms or rules which use the blockchain platform and are labelled as arbitration procedures.

One of the first blockchain-based arbitration platforms to emerge was Kleros. The application functions as a decentralised court system designed to resolve disputes arising from smart contracts through a crowdsourced jury, incentivised by economic rewards.⁷ Kleros, initially built on the Ethereum network, has transitioned to a home chain for its latest version, operating as a smart contract application within a blockchain ecosystem.⁸ The Kleros dispute resolution process is opt-in, meaning that both parties must explicitly agree to use it. When a dispute arises, the process begins with the appointment of jurors. These jurors are selected randomly from a pool of participants who have staked tokens, known as Pinakions (PNKs), on the platform. The decision of the jurors is executed on the blockchain network and is automatically executed through the network, subject to a right of appeal.

Another blockchain-based dispute resolution platform is Jur. Jur is built on a blockchain-based infrastructure and operates as a decentralised application, similar in concept to Kleros.⁹ Jur's dispute resolution feature, known as the Jur Dispute Resolution Module, incorporates arbitration as a fundamental component of its design. The arbitration process is described as UNCITRAL-compliant and follows a fully digital workflow enabled by smart contracts.¹⁰ The procedure within Jur consists of three key stages: identifying the appropriate Court, outlining the dispute, and delivering the judgment. The term "Court" refers to the method of resolution, which may be either a crowdjustice process or a formal arbitration mechanism, depending on the dispute's characteristics.

In relation to the crowdjustice model, panel members are appointed by the entity managing the process.¹¹ This approach is typically used for resolving low-value, high-volume cases, whereas arbitration is generally reserved for more complex or higher-stakes disputes. In crowdjustice proceedings, the final decision, termed a "judgment", is made by a majority vote of the panel members.¹² While Jur does not provide a detailed explanation of how decisions are rendered in the arbitration model, it is presumed that these outcomes take the form of arbitral awards executed through smart contracts.¹³

Another example of blockchain-based arbitration is the Digital Dispute Resolution Rules (DDRR), which are a set of procedural rules, rather than a platform or smart contract application. Developed by the UK Jurisdiction Taskforce, these rules provide a framework for

⁷ Clément Lesaege, Federico Ast and William George, "Kleros Whitepaper Short Paper v1.0.7," September 2019, at 14, <<https://kleros.io/whitepaper.pdf>> accessed 23 October 2025.

⁸ Sara Hourani, 'An Introduction to Blockchain-based Dispute Resolution: The Emergence of New Procedural Designs' (2023) 10 BCDR International Arbitration Review 89–110.

⁹ Jur, "Introduction to the Jur Architecture," <<https://gitbook.jur.io/jur-documentation/architecture/intro>> accessed 20 December 2025.

¹⁰ Jur, "Private Beta Launch: Open Justice Online Dispute Resolution Platform," 31 March 2021, <<https://jur.io/blog/private-beta-launch-open-justice-online-dispute-resolution-platform/#:~:text=The%20UNCITRAL%20model%20is%20an,agreement%20done%20between%20the%20parties>> accessed 23 October 2025.

¹¹ Jur, "Jur Dispute Resolution Module: Court," <<https://gitbook.jur.io/jur-documentation/architecture/dispute-resolution-module/court>> accessed 20 December 2025.

¹² Jur, "Jur Dispute Resolution Module: Judgement," <<https://gitbook.jur.io/jur-documentation/architecture/dispute-resolution-module/judgement>> accessed 20 December 2025.

¹³ Sara Hourani, "An Introduction to Blockchain-based Dispute Resolution: The Emergence of New Procedural Designs," *supra* n 8.

resolving disputes through arbitration or expert determination¹⁴, which could be either in blockchain type or traditional form arbitration, but executed through blockchain infrastructure. The DDRR are intended for use in on-chain digital relationships and smart contract-based transactions¹⁵, but only apply where the parties have explicitly agreed to their use.¹⁶ The DDRR align with traditional arbitration procedures, while encouraging the use of digital technologies to enhance efficiency and reduce delays.¹⁷ The resolution reached through this process may be enforced via technologies such as smart contracts, aligning the rules with the technical environment in which many digital disputes arise.¹⁸

A comparative analysis of Kleros, Jur, and the DDRR reveals several common features: all three systems leverage blockchain technology and smart contracts to enhance procedural efficiency, and each incorporates a degree of automation into the structure of their dispute resolution processes.¹⁹ In each type the procedure is compulsory as long as the parties have agreed to resolve the dispute through a set of agreed procedural rules, and all three systems claim to deliver a binding outcome.

B. The Rationale of Decentralised Justice: Governance by Code to Replace PIL?

The concept of blockchain-based dispute resolution or arbitration is founded on the elimination of any state intervention, whilst enabling parties involved in cryptocurrency transactions to have access to an adequate dispute resolution forum.²⁰ The need for blockchain-based arbitration became apparent as a result of the difficulty in establishing jurisdiction before a competent national court due to the challenge of identifying connecting factors between the dispute and any jurisdiction in these types of transactions.²¹ This would be especially the case for disputes that arise from cross-border transactions, which most blockchain-based disputes belong to as demonstrated through the litigation and arbitration cases to date. For example, specific characteristics such as party anonymity and pseudonymity, and the uncertain legal status of the subject-matter of cryptoasset transactions add to these jurisdictional challenges.²² Since there is no possibility for voluntary compliance is of the outcome of the blockchain-

¹⁴ See Lawtech UK, “About Lawtech UK,” <<https://lawtechuk.io/about/>> and UK Jurisdiction Taskforce, “Digital Dispute Resolution Rules,” Lawtech UK (2021) <https://technationio.wpenginepowered.com/wp-content/uploads/2021/04/Lawtech_DDDR_Final.pdf> accessed 20 December 2025.

¹⁵ These are transactions that take place on the blockchain.

¹⁶ Sara Hourani, “An Introduction to Blockchain-based Dispute Resolution: The Emergence of New Procedural Designs,” *supra* n 8.

¹⁷ DDRR *supra* no. 11, Rule 9.

¹⁸ Sara Hourani, “An Introduction to Blockchain-based Dispute Resolution: The Emergence of New Procedural Designs,” *supra* n 8.

¹⁹ This conclusion was also reached in Darcy W.E. Allen, Aaron M. Lane and Marta Poblet, “The Governance of Blockchain Dispute Resolution,” *Harvard Negotiation Law Review*, vol. 25, no. 1, 75-101, at 13; Florence Guillaume and Sven Riva, “Blockchain Dispute Resolution for Decentralized Autonomous Organizations: The Rise of Decentralized Autonomous Justice,” in Andrea Bonomi, Matthias Lehmann, and Shaheez Lalani (eds), *Blockchain and Private International Law*, International and Comparative Business Law and Public Policy, Volume: 4 (Brill 2023), 549–641, at 613.

²⁰ Sara Hourani, “An Introduction to Blockchain-based Dispute Resolution: The Emergence of New Procedural Designs,” *supra* n 8, at 99.

²¹ Florence Guillaume and Sven Riva *supra* n 19, at 602.

²² James Metzger, “The Current Landscape of Blockchain-Based, Crowdsourced Arbitration,” *Macquarie Law Journal*, vol. 19 (2019) 81-102, at 87.

based dispute resolution procedure by the parties, it would be necessary to have a dispute settlement mechanism that would complement this ‘trustless’ environment.²³

The types of disputes that have been handled by decentralised blockchain-based arbitration platforms to date have been mostly decentralised finance cases.²⁴ These disputes have included ownership disputes in relation to cryptoassets, such as loss of cryptowallets, smart contract-related disputes that have affected the transfer of cryptoassets on the network and fraud, theft and hacking disputes. Blockchain-based dispute resolution platforms such as Kleros and Jur do not only target the resolution of cryptoasset disputes, even though this is the main object of their dispute resolution procedures.²⁵ These also state on their websites that they can administer small claims related to insurance, e-commerce, finance, freelancing, token listing, content moderation, intellectual property and SME disputes.²⁶ Blockchain-based dispute resolution has however been mainly designed for the resolution of consumer cryptoasset disputes as already mentioned earlier in this section.²⁷ The nature of the blockchain-based dispute arbitration therefore matches the nature of the transactions it handles, and the network that these are based on.²⁸

Therefore, blockchain-based arbitration has been designed to be governed by code responding to the gaps in the private international law and international arbitration legal frameworks. This comes as a result of challenges in the enforcement of blockchain-based dispute resolution outcomes as a result of no clear link to any jurisdiction, and the lack of a harmonised approach towards the recognition and enforcement of blockchain-based dispute resolution outcomes across different jurisdictions. The self-enforcement of the outcome or award renders a harmonised approach on its recognition and enforcement possible in the web3 environment.²⁹ Governance by the law of code happens by way of automation in the decentralised ecosystem. This is based on the theory of the *lex cryptographia* which is premised on the idea that governance on the blockchain network is shaped by the instructions given through code on the

²³ Pietro Ortolani, “Self-Enforcing Online Dispute Resolution: Lessons from Bitcoin.” *Oxford Journal of Legal Studies*, vol. 36, no. 3 (2016) pp. 595-629, at 608- 609.

²⁴ See *ibid* Pietro Ortolani, at 607; Tamar Meshel and Moin A. Yahya, “Crypto Dispute Resolution: An Empirical Study.” *Illinois Journal of Law, Technology & Policy*, volume 2021, issue 2 (2021).

²⁵ Sara Hourani, “An Introduction to Blockchain-based Dispute Resolution: The Emergence of New Procedural Designs,” *supra* n 8, at 102.

²⁶ See Jay Buidl, “Kleros 2.0: Scaling from 1,000 to 1 Billion Cases,” Kleros (24 November 2021) <<https://blog.kleros.io/towards-kleros-v2>> accessed 25 December 2025; Jur, “Private Beta Launch: Open Justice Online Dispute Resolution Platform” (31 March 2021) <<https://jur.io/blog/private-beta-launch-open-justice-online-dispute-resolutionplatform/#:~:text=The%20UNCITRAL%20model%20is%20an,agreement%20done%20between%20the%20parties>> accessed 23 October 2025.

²⁷ Pietro Ortolani, “The Judicialization of the Blockchain,” in Philipp Hacker, Ioannis Lianos, Georgios Dimitropoulos and Stefan Eich (eds), *Regulating Blockchain: Techno-Social and Legal Challenges* (Oxford University Press, 2019), at 302.

²⁸ *Ibid*, at 299; Pietro Ortolani, “Recognition and Enforcement of the Outcome of Blockchain-Based Dispute Resolution”, in Andrea Bonomi, Matthias Lehmann, and Shaheez Lalani (eds), *Blockchain and Private International Law*, International and Comparative Business Law and Public Policy, Volume: 4 (Brill 2023), 642–669, at 647 and 648; Florence Guillaume and Sven Riva *supra* n 19, at 555.

²⁹ The web3 environment is a concept referring to the blockchain ecosystem.

system.³⁰ This theory is derived from Lawrence Lessig's theory on code is law which considers that the internet is governed through the rules of cyberspace rather than state law.³¹

Pursuant to this, it becomes possible to obtain the execution of the outcome and obtain remedies on-chain to avoid the intervention of the state, as the procedure and environment become regulated by code without the need for state intervention.³² Blockchain-based dispute resolution platforms do not directly refer to governance by the *lex cryptographia*, however it has been argued by scholars that such governance is reflected and implied in these types of procedures.³³ The foundation of the automated execution of the outcome of the procedure opens up the foundation of a form of stateless justice.³⁴ The blockchain-based arbitration procedure is thereby based on the idea that it could operate independently of state courts.³⁵ The blockchain-based dispute resolution mechanism namely exercises its power of jurisdiction autonomously as state authorities are limited in their ability to have access to power over the cryptoassets, and the enforcement of their decisions which involves the transfer of the subject-matter of the dispute.³⁶ In this manner, the blockchain network and environment replaces the state's coercive powers over the dispute resolution procedure.³⁷ As this eliminates the need to have recourse to national courts for the recognition and enforcement of a blockchain-based arbitral award, the question ensues whether the current international arbitration framework would not apply at all to the procedure.

Decentralised blockchain-based arbitration can thus be considered to be a *sui generis* form of arbitration, a form of online dispute resolution that functions on the web3 network.³⁸

C. Does Blockchain-based Arbitration conform to traditional Arbitration frameworks?

It is essential to analyse whether blockchain-based arbitration falls within the traditional meaning of arbitration in the first place, so to be able to ascertain whether they may enjoy the privileges provided under the New York Convention³⁹, and whether they fall within the supervisory powers of applicable domestic arbitration laws, and generally enjoy the support of national international arbitration frameworks. At present, no domestic or international law explicitly recognise the legal validity of arbitration procedures conducted via blockchain, or their outcomes. The degree of acceptance and legal recognition of blockchain-based dispute

³⁰ Primavera De Filippi, "Code Is Law – But It's Not the Only Law for Blockchains," Coindesk, May 5 2018, <<https://www.coindesk.com/code-law-not-law-blockchains>> accessed 23 October 2025; See Aaron Wright and Primavera De Filippi, "Decentralized Blockchain Technology and the Rise of Lex Cryptographia" (March 10, 2015), <https://ssrn.com/abstract=2580664> accessed 20 December 2025.

³¹ Lawrence Lessig, *Code and Other Laws of Cyberspace* (Basic Books, 1999), available at: 1999-Code.pdf (lessig.org), at 6.

³² Florian Moslein, "Conflicts of Laws and Codes: Defining the Boundaries of Digital Jurisdictions," in Philipp Hacker, Ioannis Lianos, Georgios Dimitropoulos and Stefan Eich (eds), *Regulating Blockchain: Techno-Social and Legal Challenges* (Oxford University Press, 2019) at 277.

³³ See Aaron Wright and Primavera De Filippi, "Decentralized Blockchain Technology and the Rise of Lex Cryptographia" *supra* n 30.

³⁴ Maxime Chevalier, "From Smart Contract Litigation to Blockchain Arbitration, a New Decentralised Approach Leading Towards the Blockchain Arbitral Order," *Journal of International Dispute Settlement*, vol. 12, no. 4 (2021) 558-584, at 576-577.

³⁵ Pietro Ortolani, "Recognition and Enforcement of the Outcome of Blockchain-Based Dispute Resolution" *supra* n 28, at 652.

³⁶ Florence Guillaume and Sven Riva *supra* n 19, at 609.

³⁷ Pietro Ortolani, "The Judicialization of the Blockchain" *supra* n 27, at 294.

³⁸ Maxime Chevalier *supra* n 34, at 575.

³⁹ The New York Convention, *supra* n 3.

arbitration varies across jurisdictions⁴⁰, and much depends on the procedural design of the blockchain-based arbitration mechanism in question.

There are several elements in the blockchain-based arbitration procedural design which could cast doubt about whether they conform to traditional arbitration. However, most of the challenges associated with blockchain-based arbitration are procedural in nature and do not go to the conceptual core of what qualifies arbitration as a legal mechanism. Arbitration is not a ‘thing’ but a doctrinal construct, and for any procedure to qualify as arbitration it must satisfy two basic conditions: first, the parties must have agreed to submit their dispute to arbitration to the exclusion of other grievance mechanisms which makes arbitration consensual and subject normatively and philosophically to party Autonomy. Second, that the agreed arbitral procedure must produce a binding outcome often in the form of an arbitral award.

Apart from the question of establishing whether the parties consented to arbitrate because of the ‘in code’ and ‘opt in’ nature of the arbitration agreement⁴¹, the remaining challenges identified in this Article concern not the binding or consensual character of the procedure or the outcome as such, but its relationship with a judicial seat in terms of supervisory powers and support, and the validity of the arbitral award and its enforcement. The doubt about the validity of the award and its enforcement arise out of procedural irregularities mainly relating to deficiencies in due process such as the elimination of the right to an oral hearing in the proceedings⁴², justifiable doubts about the impartiality of the tribunal⁴³, the manner of appointment of the tribunal such as the decentralised crowdjustice approach⁴⁴, and the contention whether an award which is delivered through code on the blockchain platform

⁴⁰ Sara Hourani, “The Resolution of B2B Disputes in Blockchain-Based Arbitration: A Solution for Improving the Parties’ Right of Access to Justice in the Digital Age?” in Leonardo V. P. Oliveira and Sara Hourani (eds) *Access to Justice in Arbitration: Concept, Context and Practice*, International Arbitration Law Library (Wolters Kluwer, November 2020).

⁴¹ Maxime Chevalier, *supra* n 34, at, 571.

⁴² Maxime Chevalier, *supra* n 34, at 570; James Milton Hosking and Marcel Carvalho Engholm Cardoso, “The Central Importance of the Seat in Online Dispute Resolution.” *BCDR International Arbitration Review*, volume 8, Issue 1 (2021), 103- 120.; Maxi Scherer, “Remote Hearings in International Arbitration: An Analytical Framework.” *Journal of International Arbitration*, volume 37, Issue 4 (2020), 407-448; Pietro Ortolani, “Recognition and Enforcement of the Outcome of Blockchain-Based Dispute Resolution”, *supra* n 85, at 655-656 and 658-661; Pietro Ortolani, “Blockchain Technology and Arbitration,” *supra* n 6; Cemre Ç. Kadioğlu Kumtepe, “Defining Boundaries of Due Process in Blockchain Arbitration,” in Maud Piers and Sean McCarthy (eds), *Transforming Arbitration: Exploring the Impact of AI, Blockchain, Metaverse and Web3* (Radboud University Press, 2025).

⁴³ Pietro Ortolani, “Recognition and Enforcement of the Outcome of Blockchain-Based Dispute Resolution”, *supra* n 28, at 655-656 and 658-661; Pietro Ortolani, “Blockchain Technology and Arbitration,” *supra* n 6; Michael Buchwald, “Smart Contract Dispute Resolution: The Inescapable Flaws of Blockchain-Based Arbitration.” 168 *University of Pennsylvania Law Review* (2019-2020) 1369; Bahadır Köksal, “Smart Contract Arbitration: Anonymity or Transparency,” Oxford Business Law Blog, 27 September 2024 <<https://blogs.law.ox.ac.uk/oblb/blog-post/2024/09/smart-contract-arbitration-anonymity-or-transparency>> accessed 23 October 2025.

⁴⁴ Niuscha Bassiri and Pratyush Panjwani, “Cross-Border Enforcement of Arbitral Awards Rendered in ODR.” *BCDR International Arbitration Review*, volume 8, issue 1 (2021), 145-174. Pietro Ortolani, “Recognition and Enforcement of the Outcome of Blockchain-Based Dispute Resolution”, *supra* n 28, at 655-656 and 658-661; Pietro Ortolani, “Blockchain Technology and Arbitration,” *supra* n 6; see Cour d’appel de Paris RG n° 21/08610 2 mai 2024. Moreover, See Amsterdam Court of Appeal, 29 January 2019, ECLI:NL:GHAMS:2019:192 X v Y where the Dutch decision that refused to enforce an arbitral award rendered through a Blockchain-based arbitration procedure, because according to the court the procedural design and structure of the dispute resolution mechanism did not provide parties with the opportunity to present their arguments before the tribunal offending by that Dutch Public policy, a challenge which is possible under Article V(2) of the New York Convention.

satisfies the formal requirements often expected of an award under various instruments such as Article 4 of the New York Convention.⁴⁵

In any event, arbitration operates within a largely comparative legal framework, and much will depend on how blockchain-based arbitration is treated across different legal systems, particularly at the stage of recognition and enforcement, where jurisprudence under the New York Convention demonstrates that courts may look beyond formal defects and, in some instances, enforce awards even where they have been set aside at the seat of arbitration.⁴⁶ This is more likely in those seats that highlight the autonomous nature of the arbitral award and recognise to some degree the delocalised nature of the arbitral proceedings and the arbitral awards.⁴⁷ For example, courts may recognise that parties can choose cyberspace and establish their own rules for the arbitration procedure.⁴⁸

Thus, despite their unconventional nature, these procedures may still fall within the doctrinal construct of arbitration under various national and international arbitration frameworks.⁴⁹ For example, a Mexican court of first instance endorsed this broader interpretation when it recognised and enforced a decision rendered through Kleros in a tenancy dispute, thereby affirming the legal validity of a blockchain-based arbitral award in that jurisdiction, notwithstanding the distinctive features relating to the appointment of the arbitral panel on the facts of that case, which departed from those found in traditional arbitration.⁵⁰

One remaining obstacle relates to the identification of the judicial seat of arbitration, which plays an important role in supporting the arbitral process and the arbitral award. In the next section we seek to analyse whether current arbitration frameworks, domestic or international provide the tools to identify a *lex arbitri* applicable to a decentralised blockchain-based arbitration procedure in the absence of a choice or a designated judicial seat by the parties.

⁴⁵ Maxime Chevalier, *supra* n 34, at 572; see for example *Astaldi S.p.a. v. Peri LLC*, Court of Appeal of Rome, 414/2023, 20 January 2023, where it was held that the production of the duly authenticated original award and arbitration agreement (or a duly certified copy thereof) is a formal and mandatory requirement for the recognition of the foreign award. See also Article 4 of the New York Convention, *supra* n 3.

⁴⁶ *Chromalloy Aeroservices Inc. v Arab Republic of Egypt*, 939 F.Supp. 907 (DDC 1996), (2003) 19 Arab Intl 424, (2003) 12 Intl Arab Rep 8; *Corporación Mexicana de Mantenimiento Integral, S. de R.L. de C.V. v Pemex-Exploración y Producción* 832 F 3d 92 (2d Cir 2016); *Société Hilmarton Ltd v Société Omnium de traitement et de valorisation* [1994] (cour de cassation). *Société PT Putrabali Adyamulia v Société Rena Holding et Société Mnugotia Est Epices* [2007] Rev Arb 507.

⁴⁷ The theory of delocalisation is based on two key premises. First that the arbitral proceedings are detached from control by the law of the place in which it is held. The second premise is that there would regulatory and court control should only happen at the place of recognition and enforcement of the arbitral award. See Gary Born “Chapter 11: Legal Framework for International Arbitral Proceedings (Updated February 2024),” in *International Commercial Arbitration*, Third Edition (Kluwer Law International, 2021); Nigel Blackaby KC, Constantine Partasides KC and Alan Redfern *supra* n 61, at 157. See Toni Deskoski, Vangel Dokovski and Ljuben Koccev, “(De)Localization of Arbitration- Online v Offline Arbitration- E-Arbitration in Time of Covid 19,” *Iustinianus Primus Law Review* 12, no. 2 (2021): 1-13. See also Jan Paulsson, ‘Delocalisation of International Commercial Arbitration: When and Why It Matters’ in Albert Jan van den Berg (ed), *International Arbitration 2006: Back to Basics?* (ICCA Congress Series No 13, Kluwer Law International 2007) 289; Julian D M Lew, ‘Achieving the Dream: Autonomous Arbitration’ (2006) 22 *Arbitration International* 179.

⁴⁸ *Dell Computer Corp v Union des consommateurs* 2007 SCC 34, (2007) 284 DLR (4th) 577.

⁴⁹ Sara Hourani, “An Introduction to Blockchain-based Dispute Resolution: The Emergence of New Procedural Designs,” *supra* n 8, at 103-106.

⁵⁰ See details in Mauricio Virues Carrera, “Accommodating Kleros as a Decentralised Dispute Resolution Tool for Civil Justice Systems: Theoretical Model and Case of Application” <(FINAL DRAFT-Personal Data 2nd check) Accommodating Kleros as a Decentralized Dispute Resolution Tool for Civil Justice Systems - Theoretical Model and Case of Application> accessed 20 December 2025.

III. The Current Position of the Law and the Gaps in the Determination of the Seat for Blockchain-based Arbitration

The *lex arbitri* is the body of law containing general principles external to the arbitration agreement providing an important direction for the conduct of the arbitral proceedings.⁵¹ There is overwhelming support in the theory and practice of international arbitration that the procedural law at the judicial seat of arbitration governs the arbitration proceedings (*'lex arbitri'*).⁵² Thus, the choice of a seat signifies parties' agreement, *inter alia*, to 'the jurisdiction of the courts of that place and to its law and coercive powers for the purposes of deciding any issue relating to the validity or enforceability of their arbitration agreement'.⁵³ This choice empowers the court at the seat to have various supervisory powers such as powers to make interim measures in support of arbitration.⁵⁴

Drawing a link between the judicial seat and the *lex arbitri* can be justified by a number of reasons. The decisive point is that this conflict rule is grounded either in the principle of autonomy, or by demonstrating a territorial nexus between the arbitral proceedings and a judicial seat⁵⁵, which was adopted by most arbitration rules and supported by case law.⁵⁶ However, this is problematic in blockchain-based arbitration procedures which follow procedural designs that by their very nature are decentralised from any territory.

The New York Convention places a relative importance on the judicial seat of arbitration through its provisions such as articles II(1), V(1)(a), V(1)(d) and V(1)(e).⁵⁷ The UNCITRAL Model Law on International Commercial Arbitration refers in article 1(2) to the place of arbitration as the law governing the arbitration.⁵⁸ Many national legal texts further affirm the principle of the judicial seat in their arbitration legislation.⁵⁹ The English Arbitration Act 2025 affirms this principle in sections 2, 3 and 52(5). The importance of the arbitral judicial seat in international arbitration cases has also been corroborated by English case law.⁶⁰ These references to the seat demonstrate that arbitration must be rooted in a national legal system.⁶¹

A. The Determination of the Seat for a Decentralised Blockchain-based Arbitration Procedure

The English Arbitration Act proposes solutions to situations where a seat is not designated by the parties. The general approach is founded on the notion that party autonomy where clear, must prevail. Therefore, if the arbitration agreement selects an arbitral institution, or a designated appointing authority, or where the tribunal is constituted in accordance with the arbitration agreement, then usually the power is given to those entities to select the juridical

⁵¹ Giuditta Cordero-Moss, "The Role of the *Lex Arbitri*," in C. L. Lim (ed) *The Cambridge Companion to International Arbitration* (Cambridge University Press 2021), at 103. See *Smith Ltd v H&S* [1991]

⁵² Nigel Blackaby KC, Constantine Partasides KC and Alan Redfern, "Redfern and Hunter on International Arbitration," (Oxford University Press 2022), at 149.

⁵³ *Chubb Russia Investments Ltd v Inka Insaat ve Sanayi AS* [2023] UKSC 38, [2024] AC 1, para 121

⁵⁴ *C v D* [2007] EWHC 1541 (Comm); [2007] 2 All ER (Comm) 557, paras 29-34 (Cooke J)

⁵⁵ Giuditta Cordero-Moss *supra* n 51, at 102.

⁵⁶ *Union of India v McDonnell Douglas Corp* [1993] 2 Lloyd's Rep. 48, 50 (QB) (English High Court).

⁵⁷ *Ibid*; Nigel Blackaby KC, *supra* n 52, at 149.

⁵⁸ See *ibid*.

⁵⁹ Gary Born, *supra* n 47.

⁶⁰ See *Naviera Amazonia Peruana SA v Compania Internacional de Seguros del Peru* [1988] 1 Lloyd's Rep 116 in which Kerr LJ stated that every arbitration must have a seat.

⁶¹ See Gary Born, *supra* n 47.

seat for the parties.⁶² Where this is not possible usually a court must determine the judicial seat taking into consideration the parties' agreement and all the relevant circumstances of the case.⁶³ Similarly, Article 21 (1) of the UNCITRAL Model Law ('ML') stipulates that in the absence of a choice the place of arbitration shall be determined by the 'arbitral tribunal having regard to the circumstances of the case, including the convenience of the parties'.

Apart from the power of the English court to select the seat on the basis of the parties' agreement and all other circumstances, the court may also exercise supervisory powers over an arbitral process in situations where a judicial seat is not designated or determined and where the arbitration procedure is connected with England, Wales or Northern Ireland and that the court is satisfied it will be appropriate to do so.⁶⁴ The latter provision does keep the door ajar for courts' intervention in situations where a judicial seat is not designated or determined, demonstrating that the *lex arbitri* can be brought into operation on the basis of the criteria envisaged under the Arbitration Act.

This does not mean that arbitral tribunals, institutions, or courts select the seat in an arbitrary fashion or in accordance with what they deem appropriate, rather that they will determine the seat in accordance with an objective criterion, depending on the circumstances of the case, the convenience of the parties⁶⁵, and even factors that can point to the unexpressed common intention of the parties about a choice of a judicial seat.⁶⁶

Therefore, the existence of a judicial seat is required, and essential, and where it is not chosen, courts or tribunals must find it by looking at the parties' agreement, connecting factors and all other relevant circumstances. Without it courts only exceptionally will have supervisory powers over an arbitral process, and an award, including its enforcement.⁶⁷ This was confirmed by successive cases, and usually justified by pragmatic logic, acknowledging that throughout the life of an arbitral process a court at the seat will be called upon to support the parties and the arbitral tribunal, a power that is indispensable for the proper functioning of international arbitration, and the legitimacy of the arbitral award.⁶⁸

The determination of the seat usually proceeds by assessing connecting factors between the arbitral proceedings and a seat. The challenge is to reconcile the primary rationale of the blockchain-based network which is rooted in the idea of the avoidance of any territorial link to

⁶² See ICC international arbitration rules Art 18, LCIA Arbitration Rules Article 16, and SIAC Arbitration Rules Art 21 as few examples.

⁶³ Section 3 of the Arbitration Act 2025.

⁶⁴ Article 2(4) of the Arbitration Act 2025.

⁶⁵ UNCITRAL Model Law Article 21(1)

⁶⁶ This conflation with the determining the implied intention with the rule of law used in the absence of a choice, implied or express, requires further analysis which falls outside the scope of this paper, a debate which was visible in the conflicting decisions of the French court and English court on virtually identical question on the validity of an arbitration clause. See *Dallah Real Estate & Tourism Holding Co v Ministry of Religious Affairs, Government of Pakistan* [2010] UKSC 46, [2011] 1 AC 763, and before the French Court *Gouvernement du Pakistan – Ministère des Affaires Religieuses v Société Dallah Real Estate & Tourism Holding Co* (Cour d'appel de Paris, 17 February 2011, Rép. gén. 09/28533, 09/28535 & 09/28541). See also more recently *Kabab-Ji SAL (Lebanon) v Kout Food Group (Kuwait)* [2021] UKSC 48., and before the French court *Kout Food Group c Kabab-Ji SAL* (Cour de cassation, 1re civ, 28 septembre 2022, n° 20-20.260).

⁶⁷ See Section 2(4) of the Arbitration Act 2025.

⁶⁸ See *Dallah Real Estate and Tourism Holding Co v Ministry of Religious Affairs, Government of Pakistan* [2010] UKSC 46, [2011] 1 AC 763, and see also *Sulamérica* [2012] EWCA Civ 638.

the transactions taking place on the ledger, and the traditional approach as seen above which primarily looks for connecting factors with the judicial seat.

However, despite this challenge there have been various applications of factors common to blockchain-based arbitration. First, they can consider connecting factors related to the arbitration service provider such as the place where the website of the provider is, the place where the dispute resolution provider is or the place where the e-platform used for the management of the arbitration proceedings is based.⁶⁹ It may be possible to apply these connecting factors in cases involving smart contract-based conventional arbitration procedural designs, especially if the arbitral institution has been named or selected by the parties. This is a logical conclusion because the place where the arbitral institution located, is the place where the conduct of arbitration is, involving filings, and where various administrative tasks are handled concerning the dispute, which points to the place of central gravity.⁷⁰

However, the application of these connecting factors to crowdjustice decentralised procedures or completely decentralised arbitration procedures might not be possible. For example, Jur is based in the web3 jurisdiction⁷¹, and Kleros functions as an open-source online dispute resolution protocol which runs on the blockchain network.⁷² It is therefore impossible to locate these two types of dispute resolution mechanisms. It might be eventually possible to find one of these connecting factors as applicable to Kleros for example as it is coordinated by a cooperative that is incorporated in France.⁷³

Second, the place where the servers are is another connecting factor that is applied in virtual arbitration hearings.⁷⁴ It is however not possible to apply this connecting factor to attach the procedure to a potential jurisdiction or judicial seat as the blockchain network is decentralised in nature, as the servers which are managing the network are located in different jurisdictions with no single central server as discussed above in section II.⁷⁵

Third, the place where the computer is based or where the communications by the arbitral tribunal are sent and collected could be another connecting factor between the arbitration procedure and the judicial seat.⁷⁶ The challenge arising with the application of this connecting factor is that the parties and tribunal would most probably be anonymous or pseudonymous. Added to this would be the decentralisation feature of the blockchain network, which would mean that it would be nearly impossible to locate in which jurisdiction the tribunal is seated.⁷⁷

It is clear that these connecting factors will manifest differently depending on the type of blockchain-based procedure in question. If a blockchain-based arbitration is based on a

⁶⁹ Maxime Chevalier *supra* n 34, at 568.

⁷⁰ Dubai Islamic Bank PJSC v Paymentech Merchant Services Incorporated [2001] 1 LLR, 65.

⁷¹ <<https://gitbook.jur.io/jur-documentation/more/about-us>> accessed 23 October 2025.

⁷² <<https://kleros.io/about>> accessed 23 October 2025.

⁷³ Ibid.

⁷⁴ Maxime Chevalier *supra* n 34, at 568.

⁷⁵ Law Commission, “Digital assets and (electronic) trade documents in private international law: Consultation paper”, (June 2025) <<https://lawcom.gov.uk/publication/digital-assets-and-electronic-trade-documents-in-private-international-law-consultation-paper/>> accessed 23 October 2025, at 18.

⁷⁶ Maxime Chevalier *supra* n 34, at 568.

⁷⁷ See Dr. Primavera de Filippi, Dr. Morshed Mannan, Sofia Cossar, Tara Merk, Jamilya Kamalova, “Blockchain Technology and Polycentric Governance,” Research Project Report, May 2024, published by EUI <<https://blockchaingov.eu/wp-content/uploads/2024/07/Blockchain-Technology-and-Polycentric-Governance.pdf>> accessed 23 October 2025.

permissioned blockchain network⁷⁸, then this would facilitate the determination of the seat due to the elimination of the anonymity and pseudonymity of the parties and tribunal. Issues related to the determination of the seat would also be reduced in the use of such networks due to increased transparency about the jurisdictions which are involved in the procedure, as the location of all of the participants to the procedure would be known to each other including the arbitral tribunal. Namely, permissioned networks can enforce awards on-chain through practical tools like suspending access, blacklisting users, or restricting trading privileges. Moreover, reputational sanctions can be effective by using permissioned networks as participants operate within a controlled membership system. Naturally, the territorial link in such procedures become more visible and hence greater recourse to classical conflict-of-laws rules would come into play.

Concerning decentralised crowdjustice arbitration procedures which are self-governed procedures, it is a harder task to identify connecting factors due to their self-governed procedural design, which lacks a clear attachment to a specific jurisdiction. Similarly, in the case of smart contract-based conventional arbitration procedural designs which do not refer to a specific seat or applicable procedural law.

Pursuant to the above analysis, it can be concluded that there is lack of clarity in applying the connecting factors envisaged under the various international and domestic arbitration frameworks in the context of in decentralised blockchain-based arbitration procedures due to the decentralised architecture of the system.⁷⁹ The analysis highlights that there is a gap in the regulatory framework in cases where it would not be possible to establish the arbitral seat in decentralised blockchain-based arbitration proceedings. This leads to the question of whether there would be pure governance of blockchain-based arbitration by the law of code in such a context with no need to establish the seat or an applicable legal framework, a matter which we turn to in the following discussion.

B. Governance by the Lex Cryptographia of the Decentralised Blockchain-based Arbitration Procedure

The above discussion demonstrates that there is a gap in the regulatory framework in cases where it would not be possible to establish the judicial seat in decentralised blockchain-based arbitration proceedings. This leads to the question of whether there would be pure governance of blockchain-based arbitration by the law of code in such a context with no need to establish the seat or an applicable legal framework. Decentralised blockchain-based arbitration can thus be a *sui generis* form of arbitration, a form of online dispute resolution that functions on the web3 network.⁸⁰

At the heart of the debate is party autonomy, which enables parties to choose dispute resolution procedures such as web3-based governed procedures such as Kleros or Jur as opposed to choosing proceedings that are anchored in a judicial seat. There are however limitations to governance of the procedure by the *lex cryptographia*. The elimination of the application of the legal framework to the procedure would exclude the important role that courts play in

⁷⁸ Permissioned blockchain networks are private networks that run on the blockchain platform which grants access to it by invitation only.

⁷⁹ See Andrea Bonomi, Matthias Lehmann, and Shaheez Lalani (eds), *Blockchain and Private International Law*, International and Comparative Business Law and Public Policy, Volume: 4 (Brill 2023).

⁸⁰ Maxime Chevalier *supra* n 34, at 575.

supporting and supervising arbitration procedures.⁸¹ The intervention of national courts for example helps ensure the maintenance of standards of due process or using their prerogatives for support with the order of interim measures.⁸²

However, it is not clear where a need arises that such awards can be enforced under the system of the New York Convention. Awards rendered on-chain may be refused recognition and enforcement by the courts for the reasons described earlier in the article such as those which relate to the validity of the arbitration agreement⁸³, due process concerns, which would include the right to be heard.⁸⁴ The award can also be refused recognition and enforcement due to concerns about the arbitrability of the dispute. Most arbitral awards administered under decentralised blockchain-based arbitration concern cryptoasset or cryptocurrency transactions. Such disputes are potentially incapable of settlement by arbitration and may risk being refused recognition and enforcement under Article V(II)(a) of the New York Convention.⁸⁵ They may also offend the public of the court seised with the request to enforce the award, particularly, if there is a ban on cryptocurrencies in the jurisdiction where the recognition and enforcement of the arbitral award is being sought.⁸⁶ For example, arbitration clauses in cryptocurrency consumer disputes have been found to be unfair by the courts in some jurisdictions.⁸⁷ As discussed above in this sub-section, only a limited number of jurisdictions have recognised this theory.⁸⁸ Most states have refused to accept the concept of a delocalised or a-national arbitration, and even a-national arbitrations that are connected to national laws.⁸⁹

However, such awards may gain gradual recognition in jurisdictions which have relatively to others been willing to apply the doctrine of delocalisation. The most powerful manifestation of the doctrine can be found in French jurisprudence in relation to the determination of the law applicable to the arbitration agreement, which is founded on the parties' common intention detached from any legal order.⁹⁰ One consequence of this approach is that the arbitral award derives its legitimacy from party autonomy expressed in the arbitration agreement rather than from the seat of arbitration or any particular domestic law. The implication of this is straightforward: the enforcement of a delocalised arbitral award, which lacks a designated seat or a governing *lex arbitri* should not be refused on that basis alone.

⁸¹ Maxime Chevalier *supra* n 34, at 579. See the US case of *Reno v ACLU*, 521 US 844 (1997) in which the court emphasised that it would still retain control over the outcome of the self-regulatory process and the internet-based procedure that was the subject of the dispute. See also Diana Itzel Santana Galindo, "The Role of the Seat in Smart Contract Disputes," 7 *IJODR* 32 (2020), at 42.

⁸² *Ibid.*

⁸³ Florence Guillaume and Sven Riva *supra* n 19, at 635-636; Pietro Ortolani, "Recognition and Enforcement of the Outcome of Blockchain-Based Dispute Resolution", *supra* n 28, at 655-656 and 658-661; Pietro Ortolani, "Blockchain Technology and Arbitration," *supra* n 6; Maxime Chevalier *supra* n 34, at 578.

⁸⁴ Gary Born, *supra* n 47; Giuditta Cordero-Moss, *supra* n 51, at 103; David Molina Coello, "The New York Convention on the Enforcement of Decentralized Justice Systems' Decisions: A Perspective from the Evolutionary Interpretation of Treaties," *ITA in Review: The Journal of the Institute of Transnational Arbitration* 5, no. 2 (2023): 44-84, at 72.

⁸⁵ Article V(2)(a) of the NYC 1958

⁸⁶ Niuscha Bassiri and Pratyush Panjwani, *supra* n 44.

⁸⁷ *Soleymani v Nifty Gateway LLC* [2022] EWCA Civ 1297; *Payward Ltd and Others v. Chechetkin* [2023] EWHC 1780 (Comm); Ontario Superior Court case of *Lochan v. Binance Holdings Limited*. 2024 ONCA 784 (Lochan).

⁸⁸ Nigel Blackaby KC, Constantine Partasides KC and Alan Redfern *supra* n 61, at 160.

⁸⁹ Gary Born *supra* n 47.

⁹⁰ *Gouvernement du Pakistan – Ministère des Affaires Religieuses v Société Dallah Real Estate & Tourism Holding Co* (Cour d'appel de Paris, 17 February 2011, Rép. gén. 09/28533, 09/28535 & 09/28541

Moreover, according to a study on the New York Convention's 40th anniversary it was stated that the place of arbitration is immaterial.⁹¹ On the other hand, some national laws implementing the New York Convention such as the Arbitration Act enforce only awards which are made in a territory of another member state, envisaging by that the existence of a seat.⁹² This is not surprising given that key provisions of the New York Convention presume the existence of a seat⁹³, including the opening Article which limits the scope of the New York Convention to arbitral awards which are made in a territory of a state.⁹⁴

However, the New York Convention safeguards party autonomy, which could mean that the arbitration procedure can be interpreted as being autonomous from the arbitral seat and subject to the will of the parties and international law instead.⁹⁵ It could be argued that the Convention gives its own autonomous regulation and thus renders the *lex arbitri* or national laws redundant,⁹⁶ and thus procedural autonomy in arbitration eventually prevails.⁹⁷ This appears to be the direction of travel. It is plausible that the arbitral practice will adjust with the challenges presented by the use of web3-based procedures, which ultimately is a manifestation of party autonomy who have chosen procedures which are detached from any territorial links, which poses the question why is it decisive to tie the legitimacy of these processes with a concept which is tied with a jurisdictional seat.

Crucially, as a matter of practice, the applicability of the New York Convention is not always determinative for the execution or enforcement of blockchain-based awards, particularly where such awards can be implemented directly through smart contracts, potentially eliminating the need for a seat. This could limit the award debtor's ability to invoke any of the grounds for refusal under the New York Convention. Moreover, international commercial practice demonstrates that many awards are complied with voluntarily, either to preserve ongoing commercial relationships or to maintain reputational standing. Whilst the latter may not be prominent in cases of permissionless ledgers, they could however, form a great incentive in permissioned ledgers, or if it is possible somehow to suspend trading privileges allowing awards to be given effect independently of national courts.⁹⁸

However, there are notably limitations posed by practical and legal obstacles on the possibility to obtain remedies through the use of a decentralised blockchain-based arbitration procedure.⁹⁹ Such a procedure would not give access to assets outside the blockchain realm off-chain for example.¹⁰⁰ Blockchain-based arbitration cannot therefore be used for larger disputes as the risk of not receiving an adequate remedy could be high. Court litigation or traditional arbitration would be more certain avenues for claims arising from blockchain-based

⁹¹ James Milton Hosking and Marcel Carvalho Engholm Cardoso, "The Central Importance of the Seat in Online Dispute Resolution." *BCDR International Arbitration Review*, volume 8, Issue 1 (2021), 103-120.

⁹² Section 100 (1) of the Arbitration Act 2005

⁹³ Articles 1, V(1)(a), and V(1)(e).

⁹⁴ Article 1 of the NYC.

⁹⁵ Gary Born, *supra* n 47.

⁹⁶ Giuditta Cordero-Moss, *supra* n 51, at 97.

⁹⁷ Gary Born, *supra* n 47.

⁹⁸ Rule 24.1 of Grain and Feed Trade Association Arbitration Rules No.125 provides that a debtor failure to comply with an award can lead to them being declared a 'defaulter', which may be posted on GAFTA Notice board, website or notified to GAFTA members.

⁹⁹ *Ibid*, at 285; Pietro Ortolani, "The Judicialization of the Blockchain" *supra* n 27, at 303-307.

¹⁰⁰ Pietro Ortolani, "Recognition and Enforcement of the Outcome of Blockchain-Based Dispute Resolution", *supra* n 28, at 654; Maxime Chevalier *supra* n 34, at 575, 578; Florence Guillaume and Sven Riva *supra* n 19, at 632-633.

transactions.¹⁰¹ A decentralised blockchain-based arbitration that excludes any application of the law would be difficult to implement for the resolution of medium to large B2B disputes.¹⁰² To illustrate, Q protocol which is a smart contract-based oracle has adopted ICC arbitration to apply to any disputes arising from its use¹⁰³, thereby choosing traditional arbitration for the resolution of disputes despite being a blockchain-based application.

The question of whether there would be a need to have recourse to national law and the courts to protect or further enforce the outcome of the decentralised blockchain-based arbitration procedure consequently ensues. It has been argued that the introduction of governance by state law of blockchain-based dispute resolution is both necessary and feasible.¹⁰⁴ It has been suggested that states could introduce such governance through different strategies such as the application of soft and hard rules, national and international regulations, trustmarks and platform accreditation.¹⁰⁵ This would enable for the protection of essential procedural rights even though the procedure operates in a *sui generis* form on the web3.¹⁰⁶ This suggestion is put forward at a time when it is becoming increasingly clear that there are limitations to blockchain governance.¹⁰⁷ So the challenge remains of how to reconcile on-chain governance with the application of state law. This would have important implications for the legitimacy of the arbitration procedure and the protection of the parties' rights. It appears that in order to attain such safeguards a better theorising of the concept of connecting factors to determine a judicial seat and a *lex arbitri* is essential and much desired for the success of blockchain-based arbitration, a matter which we turn to in part IV.

IV. An Analysis of the Closest Connection for the Determination of the Relevant Forum in Arbitration and Litigation Case Law Involving Blockchain-Based Transactions Disputes

In light of the gaps in the current legal framework regarding the establishment of connecting factors for the determination of the seat in decentralised blockchain-based arbitration procedures, an analysis of recent case law stemming from arbitration and litigation involving blockchain-based transactions could provide with further answers to this issue. The analysis could namely provide with indicators on whether it would be possible to connect jurisdictional law to blockchain-based arbitration taking place in the web3 environment. This could lead to an understanding of the development of connecting factors for an arbitration taking place on the blockchain.

There has been no case law to date which has specifically dealt with the particular issue of the determination of the connecting factors to establish the seat of arbitration or the *lex arbitri* in a blockchain-based arbitration procedure. However, there is only one known case decision where the recognition and enforcement of a blockchain-based arbitral award was concerned and

¹⁰¹ Pietro Ortolani, "The Judicialization of the Blockchain" *supra* n 27, at 303.

¹⁰² David Molina Coello, *supra* n 84 at 58.

¹⁰³ Amitoj Singh, "Q Protocol to Apply International Court of Arbitration Rules to DeFi Disputes in a Sign of Growing Industry Maturity," CoinDesk, Dec 12, 2023 <<https://www.coindesk.com/policy/2023/12/12/q-protocol-to-apply-international-court-of-arbitration-rules-to-defi-disputes-in-a-sign-of-growing-industry-maturity>> accessed 20 December 2025.

¹⁰⁴ Cemre Çise Kadioğlu Kumtepe, "The Need for Governance in Blockchain Dispute Resolution (BDR): Institutional Possibilities Frontier (IPF) Perspective," *International Review of Economics* (2025) 72:17.

¹⁰⁵ *Ibid.*

¹⁰⁶ *Ibid.*

¹⁰⁷ Daniel Ferreira, "The Myths of Blockchain Governance," Oxford Law Blogs, 25 September 2025 <<https://blogs.law.ox.ac.uk/oblb/blog-post/2025/09/myths-blockchain-governance>> accessed 20 December 2025.

which could be argued to have indirectly dealt with the question of the establishment of the connecting factor to the seat of arbitration. In the absence of other arbitration case law on the matter, this section explores the closest connecting factors that were used for the determination of the relevant forum to hear the case for disputes regarding blockchain-based transactions in the context of litigation. An analysis of the closest connection test to hear the case for decentralised transactions albeit in a litigation context could provide with further understanding and potential development of the connecting factors in such an environment, which could potentially translate into solutions for the issue in arbitration. This analysis would provide potential answers on the way that the courts tend to establish the closest connection for the determination of the seat in blockchain-based arbitration procedures, and could help identify the potential line of reasoning that might be adopted by courts in the determination of the closest connection in the context of disputes arising from blockchain-based transactions.

The only known reported case to date that has dealt with blockchain-based arbitration is one by a first instance court in Mexico.¹⁰⁸ In this case, the parties had agreed to traditional arbitration but also expressly mentioned that the arbitrator would have to use the Kleros protocol to contribute to reaching a decision for the award to settle the dispute. The arbitration agreement stated that the arbitrator would have to incorporate the decision made by the Kleros jury into the arbitral award. It should also be noted that the arbitration agreement was contained in a real estate leasing agreement governed by Mexican law and did not deal with blockchain-based transactions. Once a dispute ensued, the arbitrator followed the parties' agreement and incorporated the decision that was made by Kleros into the arbitral award that was signed by the arbitrator. The submission of the request for recognition and enforcement of the arbitral award was made to the court at the seat of the parties' domicile, and the court subsequently recognised and enforced the arbitral award.

The question of the determination of the applicable *lex arbitri* was not directly raised in this case. According to the terms of the arbitration agreement, the substance of the award would be subject to governance by the Kleros protocol which would normally mean that it would be based in the web3 environment without any applicable *lex arbitri*. It was not made clear by the court what the applicable *lex arbitri* to determine the validity of the arbitral award is. It seems that Mexican law was applied by the court to determine the validity of the arbitral award, but the court did not provide an explanation as to why it applied Mexican law or even what law was explicitly applied for the recognition and enforcement of the arbitral award. Mexican law was the law applicable to the substance of the contract, the place of the domicile of both parties and the place where the arbitration procedure took place. The decision was made by Kleros but legitimised and adopted by the arbitrator.

Therefore, it can be deduced that the court considered that the *lex arbitri* was the law applicable to the procedure by implication. This was as the seat of arbitration of the traditional arbitration was in Mexico even though the procedure was a hybrid one which included the Kleros protocol in the decision-making process. The court then recognised and enforced the arbitral award and held that the arbitral award was valid pursuant to Mexican law. The New York Convention was henceforth not involved in this case as this was a domestic arbitration procedure. The closest connection can be argued to be the place where the traditional arbitration took place despite it being a hybrid arbitration procedure as the core decision was made by the Kleros jury. It has however been argued that this is a transcription of the Kleros decision into the main award

¹⁰⁸ Mauricio Virues Carrera, 'Accommodating Kleros as a Decentralized Dispute Resolution Tool for Civil Justice System: Theoretical Model and Case of Application' <<https://kleros.io/es/carrera/?ref=blog.kleros.io>> accessed 16 December 2025.

rather than a recognition of the Kleros decision as an arbitral award itself.¹⁰⁹ Despite this criticism it could still be argued that the closest connection to the arbitration procedure was indirectly established here for the Kleros-based arbitration through the award that was decided by the arbitrator. Thus, the closest connection of the hybrid arbitration procedure was the place where the arbitrator was located.

One more reported case that is relevant for the discussion of this section is a Dutch case¹¹⁰ that dealt with the validity of arbitral awards that resolved a cryptoasset dispute. This case involved a dispute regarding bitcoin loans between a consumer who was domiciled in the Netherlands and an anonymous party who entered into these transactions through an online platform. The consumer party who was the claimant in the arbitration proceedings sought to have the arbitral awards recognised and enforced in the Netherlands. The court refused to recognise and enforce the arbitral awards on the main ground that the arbitration procedure violated the parties' right to be heard as it was a written procedure. The court however additionally mentioned that the law applicable to the arbitration procedure was also unclear which was raised as a cause for concern albeit not used as a ground for the refusal to recognise and enforce arbitral awards. The court mentioned this as a cause for concern as the arbitration agreement between the parties had specified that arbitration proceedings between the parties needed to be settled by arbitration in the state of California or another location mutually agreed by the parties. However, the arbitration proceedings did not take place in California since the arbitrator was located in the State of Georgia, and in addition to this the arbitral awards did not specify the place of arbitration or place of judgment of the arbitration proceedings.

The statement made by the court regarding the lack of clarity of the seat of arbitration shows the importance of the establishment of the *lex arbitri* even for disputes arising from the web3 environment. The court assumed that such lack of clarity meant that this deviated from the parties' agreement as per the terms of the arbitration agreement. The court made this statement as the closest connection to the place of arbitration was not clear from the arbitration procedure and there was doubt regarding deviation from the parties' agreement concerning the seat of arbitration.

Given the lack of other case law directly dealing with arbitration and the determination of the closest connection for jurisdictional purposes arising from cryptoasset disputes, it would be of interest for the purposes of this section to analyse another set of case law where the application of the closest connection was applied for the determination of the competent court to hear the case in disputes arising from cryptoasset transactions. This was in situations where consumers were involved in the cryptoasset transactions. Arbitration was overridden in these cases by the right to litigate the dispute. Although the closest connection was not established in relation to the determination of the place of arbitration in these decisions, the analysis of how and why the closest connection was determined in litigation would provide with more clarity as to how this would apply in the context of the determination of the closest connection to identify the seat of arbitration in a blockchain-based arbitration procedure.

In the case of *Soleymani v Nifty Gateway LLC*¹¹¹ the English Court of Appeal held that an arbitration clause that imposed on a UK consumer proceedings located in New York was an unfair contract term under the CRA 2015. The Court of Appeal held that the claimant, as a consumer, had the right to have the issue of the validity of the arbitration agreement determined

¹⁰⁹ Pietro Ortolani, "Blockchain Technology and Arbitration," *supra* n 6.

¹¹⁰ Amsterdam Court of Appeal, 29 January 2019, ECLI:NL:GHAMS:2019:192 X v Y.

¹¹¹ [2022] EWCA Civ 1297.

in the English courts. The court had jurisdiction to hear the case as the consumer's domicile was the closest link with the internet-based transaction which gave rise to the dispute between the parties. The court explained that the trader in question had traded via a website which is directed to the UK which meant that the consumer contract has a close connection with the English court to hear the case. The Ontario Superior Court case of *Lochan v. Binance Holdings Limited*¹¹² followed the same reasoning as the English Court of Appeal as an arbitration agreement was declared to be unenforceable due to public policy concerns relating to consumer protection, and the closest connection test for the relevant court to hear the case was determined on the basis that the trading platform in question sold cryptocurrency derivatives to Canadians through its website.

In *Payward Ltd and Others v. Chechetkin*¹¹³ the UK High Court refused to enforce an arbitral award concerning a cryptocurrency dispute that was rendered under California law against a UK consumer on public policy grounds. The court considered that the closest connection was determined on the basis of the contract which was concluded between a UK national who was domiciled in England a company which was incorporated in England. The court also stated that the closest connection was also established through the payment of the company's services in UK sterling and involved transactions to and from English bank accounts.

Moreover, the High Court of Singapore identified in *Janesh s/o Rajkumar v Unknown Persons*¹¹⁴ the closest connection for the determination of the relevant forum to hear a case arising from an Non-Fungible Token (NFT) loan dispute. This case involved two business parties and the court held that the closest connection for the claimant to be able to initiate proceedings was before the courts of their domicile or place of business.¹¹⁵ The primary connecting factor was the fact that the claimant was located in Singapore and carried on his business there. This was decided by the court notwithstanding the decentralised nature of blockchain that could pose difficulties when it comes to establishing the jurisdiction of the court to hear the case.

Although not directly relevant to arbitration, it is important to acquire an understanding of the approach that courts have adopted in cases on the identification of the closest connection to find the relevant forum to hear the case in disputes involving hacks, theft and fraud of cryptoassets. This case law would not be directly applicable to arbitration as these cases deal with the determination of the relevant court to hear the case pursuant to the place where the asset is located, which is a logic that does not apply in the case of arbitration. This case law also does not directly apply in the context of the gap in blockchain-based arbitration regarding the closest connection to the seat as cases involving fraud and theft would not be submitted to arbitration.¹¹⁶ In a number of recent English case decisions on these issues the courts applied the traditional principle of the *lex situs* and sought to shape its details to the specific context of the decentralised nature of the cryptoassets without changing the manner in which the private international law principle would be applied itself.

¹¹² 2024 ONCA 784 (Lochan).

¹¹³ [2023] EWHC 1780 (Comm).

¹¹⁴ [2022] SGHC 264.

¹¹⁵ Vahid Rezadoost and Pragya Choudhary, "Arbitration Tech Toolbox: Applicable Law, Choice of Courts and Enforcement Issues in Metaverse Disputes," Kluwer Arbitration Blog, 27 September 2023 <<https://legalblogs.wolterskluwer.com/arbitration-blog/arbitration-tech-toolbox-applicable-law-choice-of-courts-and-enforcement-issues-in-metaverse-disputes/>> accessed 23 December 2025.

¹¹⁶ See the discussion on this point by Nino Sievi and Mariel Dimsey in Iulia Anghelescu, *supra* n 1.

For example, in *Ion Science Limited v Persons Unknown*¹¹⁷ it was held that the English court had jurisdiction to hear the case as the cryptoasset was situated in England as this is the place where the person or company who owns it is domiciled. In *Tai Mo Shan Ltd v Oazo Apps Ltd*¹¹⁸ the principle of control for the determination of the *lex situs* of the cryptoassets was applied, which was the closest connection for the determination of the relevant forum to hear the case.¹¹⁹ The same position on the determination of the competence of the English courts to hear the case was adopted in *D'Aloia v Persons Unknown*¹²⁰ and *Fetch.ai v Persons Unknown*¹²¹ as the location of the assets was deemed to be in England and Wales.

In conclusion to this section, there was no special closest connection test to determine the relevant jurisdiction that was created by the reported case law in relation to blockchain-based transactions disputes and the determination of the relevant forum to hear the case in litigation any of the case decisions. The traditional principle of the closest connection was applied in the majority of the examined arbitration and litigation cases for the determination of the arbitral and judicial seat. There was an added protection in consumer cases held by the English courts, Canadian court and Dutch court as arbitration was considered to be invalid and the competent forum to hear the case was the court at the place of the consumer's domicile or habitual residence.

V. The Position of the UK Law Commission Consultation Paper on Connecting Factors for the Determination of the Competent Forum in Litigation for Blockchain-based Disputes

There is currently no policy instrument which provides clarity regarding the determination of the closest connection of the seat in a blockchain-based arbitration procedure under the current international arbitration or private international law frameworks. The UK Law Commission policy project on digital assets and electronic trade documents in private international law is one of the first global policy initiatives to attempt to explore potential avenues for the determination of the linking factors to identify circumstances in which English courts can have jurisdiction over a dispute dealing with a cryptoasset transaction. More specifically, the Law Commission initiative focuses on cases of cryptoasset theft and fraud by anonymous users and where it would be difficult to locate the stolen cryptoassets.

The analysis of the UK Law Commission's proposed conclusions in its consultation paper titled 'Digital assets and (electronic) trade documents in private international law including s72 of the Bills of Exchange Act 1882'¹²² resulting from its policy project would provide with further guidance on how policy would deal with the issue of the determination of the relevant forum to hear the case arising from web3 transactions. The position adopted by the Law Commission on this issue could provide with the possibility to draw a parallel analysis with the

¹¹⁷ (21 December 2020) EWHC (Comm) (unreported)

¹¹⁸ 6 March 2023, unreported, EWHC HHJ Pelling KC.

¹¹⁹ Jennifer Craven, "High Court Will Take Pragmatic Approach to Protect Crypto Fraud Victims," Pinsent Masons Blog, 09 September 2024 <<https://www.pinsentmasons.com/out-law/news/high-court-pragmatic-approach-protect-crypto-fraud-victims>> accessed 23 December 2025.

¹²⁰ [2022] EWHC 1723 (Ch).

¹²¹ [2021] EWHC 2254 (Comm).

¹²² Law Commission, "Digital assets and (electronic) trade documents in private international law: Consultation paper", *supra* n 75.

determination of the closest connection to the seat to identify the applicable *lex arbitri* in blockchain-based arbitration.

In its consultation paper, the Law Commission provisionally concluded that the appropriate court to hear a cross-border property claim concerning a crypto-token is the court of the place where the crypto-token can successfully be dealt with at the relevant point in time.¹²³ According to the consultation paper, the courts of England and Wales would therefore have jurisdiction when a crypto-token can be controlled or otherwise effectively dealt with from within the jurisdiction at the time when proceedings are issued, which is the closest connection that determines the jurisdiction of the courts of England and Wales to hear the case.¹²⁴

The position that was provisionally adopted by the UK Law Commission on the aforementioned issue is thereby an application of the existing rules of international jurisdiction in line with the principles which underlie the *forum rei sitae* rules.¹²⁵ As the traditional principles of private international law were adopted by the Law Commission to apply for the determination of the closest connection to identify the relevant court to hear the case for the disputes arising from cryptoasset fraud, hack and theft cases, it provisionally concluded that special rules or new gateways for crypto-token litigation are neither necessary nor justified.¹²⁶

VI. Analysis on Developments in the Closest Connection Arising from Web3 Disputes and Policy: Implications for the Identification of the Seat in Blockchain-based Arbitration

This section seeks to apply the analysis that was conducted in the previous two sections of this paper and apply it to the current legal gap regarding the determination of the closest connection to the seat of arbitration in blockchain-based arbitration procedures. It has been observed that a traditional stance was adopted by the courts as well as the UK Law Commission consultation report with regards to the application of private international law rules for the determination of the jurisdiction of the relevant forum to hear disputes arising from web3 transactions. The question which ensues is therefore whether this trend would translate into arbitration as well, and more particularly in the determination of the closest connection to identify the *lex arbitri* in blockchain-based arbitration.

It was observed from the case law on arbitration in Section IV of this paper that the determination of the *lex arbitri* was made on the basis of the place of the decision made by the arbitrator. It was also observed that it could be argued that it is important for an arbitration procedure to have a determined seat and/or *lex arbitri* even for blockchain-based arbitration proceedings in order for these to get legal recognition under the New York Convention. Hence, the application of the closest connection would most probably be applied for blockchain-based arbitration by implementing the traditional position of the law on this. This could mean that the closest connection could be the place where the dispute resolution provider is located if their location is known or can be located, or the place where the arbitral award can be executed.

If a consumer is involved in the blockchain-based arbitration procedure then there is a possibility for the arbitral agreement or award to not be recognised and enforced if the trend of

¹²³ Ibid, at pp 105-106.

¹²⁴ Ibid.

¹²⁵ Ibid.

¹²⁶ Ibid.

the current case law continues or is followed by future court decisions. The courts in consumer cases involving arbitration for the resolution of cryptoasset transactions cases held that due to access to justice, unfairness and public policy grounds, consumers involved in cryptoasset transactions disputes are entitled to have their dispute resolved by the court at the place of their domicile rather than by arbitration. However, courts might also allow for the execution of the arbitral award to take place in the jurisdiction of the consumer's domicile by following the trend adopted by the same case law if they deem for the arbitration agreement or award to be valid.

Although not directly applicable in the same logic to arbitration, an analogy can be drawn from the case law on the determination of the relevant court to hear the case in cases of cryptoasset fraud, hacks the law commission provisional conclusions in its consultation paper. This analysis by analogy leads to the conclusion that it could be argued that the place of where the blockchain-based arbitral award can be performed can be the place of the closest connection to determine the *lex arbitri*.

To sum up, a pragmatic approach could perhaps be adopted for the closest connection issue in the determination of the *lex arbitri* in blockchain-based arbitration. This would mean that the place where the blockchain-based arbitral award could be recognised and enforced would be the one closest to the procedure and judicial seat. This involves the application of rules of law such as most notably the principle that the governing law is that of the jurisdiction most closely connected with the obligation to arbitrate. This could potentially be the place of the claimant's domicile or place of business in line with the case law and Law Commission consultation paper positions. Additionally, it has been put forward by arbitration practitioners that to ensure that access to justice is preserved, existing connecting factors need to be adapted to the specific features of web3 transactions. These have argued that the claimant's domicile and/or place of business could be the closest connecting factors in the context of disputes ensuing from blockchain-based transactions.¹²⁷ This corroborates the conclusion reached in this section regarding the closest connecting factor for the determination of the *lex arbitri* in blockchain-based arbitration proceedings. As such, the delocalisation theory in arbitration could apply here as the solution to the legal gap which would lead to the legal recognition of a blockchain-based arbitral award. This is of course unless courts interpret arbitral procedure as being autonomous where the New York Convention would apply to it regardless of any connection to a particular jurisdiction and without having to embrace the delocalisation theory in particular.

VII. Conclusion

In conclusion, the question regarding the determination of the closest connection remains unanswered by the case law and policy developments arising from crypto-token disputes. This paper has however identified the possibility to make predictions on the basis of the analysed case law and policy position of the UK Law Commission in its consultation paper. The analysis has led to the conclusion that the closest connection to determine the *lex arbitri* for blockchain-based arbitration procedures is the jurisdiction most closely connected with the obligation to arbitrate and where the arbitral award can be executed. It has been analysed that this could translate to be the place of the claimant's domicile or place of business. This solution is similar if not identical to the one proposed by the delocalisation theory in international arbitration. As this is only a presumptive conclusion, the paper has also concluded that the gap in the

¹²⁷ Vahid Rezadoost and Pragya Choudhary, *supra* n 115.

determination of the seat in blockchain-based arbitration procedures could still lead to the application of the *lex cryptographia* for the governance of the procedure.