

Special Section on Digital Economy and Blockchain Dispute Resolution

INTRODUCTION TO THE SPECIAL SECTION ON DIGITAL ECONOMY AND BLOCKCHAIN DISPUTE RESOLUTION

*Yueh-Ping (Alex) YANG**

We are now beholding an unprecedented new era of progress in the digital economy. The conventional digital economy relies on the internet and mobile devices to facilitate online commerce and make remote transactions more convenient. However, we are witnessing a growing number of emerging technology applications, such as big data, artificial intelligence, blockchain, and smart contracts. These applications have led to new digital products and services, from which have arisen the buzzwords such as crypto-assets, non-fungible tokens (hereinafter “NFT”), decentralized finance (hereinafter “DeFi”), or metaverse. These developments are reshaping the existing picture of online commerce.

A crucial element behind this new wave of change in the digital economy is the application of blockchain and smart contract technology. While the technological advantages of blockchain in the aspects of decentralization, immutability, or anonymity should not be exaggerated, blockchain lays down a different technological infrastructure that reshapes the digital economy. Merchants now may rely on the existing open-source blockchain, such as Ethereum, to administer the ledger documenting the records of their digital products. This technological development saves merchants the cost of establishing a proprietary central database. Blockchain further facilitates the

* Associate Professor at National Taiwan University Department of Law. Director of the Asian Center for WTO & International Health Law and Policy. Harvard Law School S.J.D. (2017). The author can be reached at alexpyyang@ntu.edu.tw.

application of smart contracts, that is, algorithms that may automatically execute the agreed-upon terms and conditions. This combination thus leads to a more automated digital economy, which again saves the merchants the cost of operating their businesses. These technological breakthroughs explain why many digital products, such as crypto-assets, DeFi, NFTs, and metaverses, have emerged in the past decade.

As blockchain reshapes the picture of modern online commerce, it also transfigures the form of online dispute resolution (hereinafter “ODR”). Conventional online transaction bears the anonymous, and sometimes cross-border, nature. Therefore, when disputes arise, parties may find it costly and challenging to resolve the disputes. This is why we are witnessing e-commerce platforms develop various ODRs to create more friendly dispute resolution mechanisms for online participants in the past. As blockchain further accentuates the anonymous and cross-border nature of online commerce and, in turn, introduces a more distributed environment, ODRs shall undergo a slew of new changes.

Among these changes, the so-called crowdsourced dispute resolution mechanism particularly attracts the attention of the blockchain community. Crowdsourced dispute resolution refers to a dispute resolution mechanism that resolves disputes based on the votes of the “crowd”, so to speak. To ensure the crowd’s voting discipline, it further builds a disciplinary mechanism that rewards the voters who vote for the majority opinion while penalizing those who vote against the majority opinion. Undoubtedly, crowdsourced dispute resolution is not an innovation made in the blockchain era. That said, it is well suited for the mentality of the blockchain circle, including the belief in the crowd’s wisdom, decentralization, and anarchism. Some commentators further advocate that it introduces so-called “decentralized justice”.

Whether this blockchain-based crowdsourced dispute resolution (hereinafter “blockchain dispute resolution”) is a viable mechanism that may change the landscape of online dispute resolution has invited vibrant academic discussions. However, more in-depth legal discussions that address the legal issues remain needed. In the Special Section of Volume 15, Issue 2 of the *Contemporary Asia Arbitration Journal*, we are fortunate to have collected three papers that delve into the potential legal issues related to blockchain dispute resolution from the perspective of international dispute resolution laws. Together, we believe these three papers may provide a more precise and comprehensive understanding of the present and future of blockchain dispute resolution.

In the first paper, Professor Yueh-Ping (Alex) Yang focuses on a central question of whether blockchain dispute resolution may be characterized as arbitration in a legal sense. He points out the lack of a clear and coherent definition for arbitration among international and domestic arbitration laws,

which renders it unclear whether the existing arbitration laws may apply to blockchain dispute resolution. Professor Yang then revisits the current approaches for defining arbitration and highlights the merit-based nature as an essential element of arbitration. He finally analyzes how the voter incentive design under the blockchain dispute resolution might compromise the merit-based nature of this emerging ODR and discusses how this concern may be mitigated by introducing the voters' duty to reason their voting decisions. Overall, this paper provides a well-structured framework for future academic discussions on the ongoing debate about the definition of arbitration and the unique design of blockchain dispute resolution.

In the second paper, Elizabeth Chan and Emily Hay discuss the enforcement aspect of blockchain dispute resolution, particularly from the perspective of the New York Convention. They persuasively establish that, despite the automated execution function of smart contracts, the potential need for parties to enforce blockchain dispute resolution remains, which leads to enforcement issues. According to their observations, several requirements under the New York Convention for enforcing an arbitration, including the agreement in writing, the identification of parties and arbitrators, the legal seat of the proceedings, the due process, and the public policy, might need further clarification when applied to blockchain dispute resolution. They then address each issue with in-depth analyses. Overall, this paper provides a comprehensive map for future academic discussions on the (in)compatibility between the conventional legal framework for arbitration, such as the New York Convention, and emerging dispute resolution modes, such as blockchain dispute resolution.

Last but not least, in the third paper, Joyce W. Chen focuses on NFT-related disputes but shifts to exploring the potential role of conventional arbitration. Instead of resorting to blockchain dispute resolution, Ms. Chen visits the potential advantages of conventional arbitration in resolving NFT-related disputes. By comparing blockchain dispute resolution with the recent efforts undertaken by conventional arbitration mechanisms, such as the Digital Dispute Resolution Rules published in the United Kingdom in 2021, Ms. Chen illustrates how the existing arbitration rules, with some accommodations, may serve as an option for addressing NFT-related disputes. Furthermore, based on the dispute resolution clause adopted by leading blockchain-based platforms, Ms. Chen provides empirical evidence indicating that arbitration remains the mainstream mode even in the blockchain circle. Overall, this paper provides a balanced view between arbitration and blockchain dispute resolution, laying a foundation for future academic discussion on the relative advantages of different dispute resolution modes in blockchain-based online commerce.

In sum, as in other legal fields, blockchain poses some challenges to the existing international dispute resolution laws. However, this is not the first

time that novel technology has entered the domain of international dispute resolutions. From a positive perspective, blockchain and the commercial applications based thereon provide rich ingredients for us to reflect on the unresolved issues under the existing international dispute resolution laws, including how to define arbitration, how to understand the requirements under the New York Convention, what the relative advantages of arbitration are. It is anticipated that this Special Section may shed light on envisaging the legal designs for blockchain dispute resolution and further rethinking the existing designs of international dispute resolution laws.