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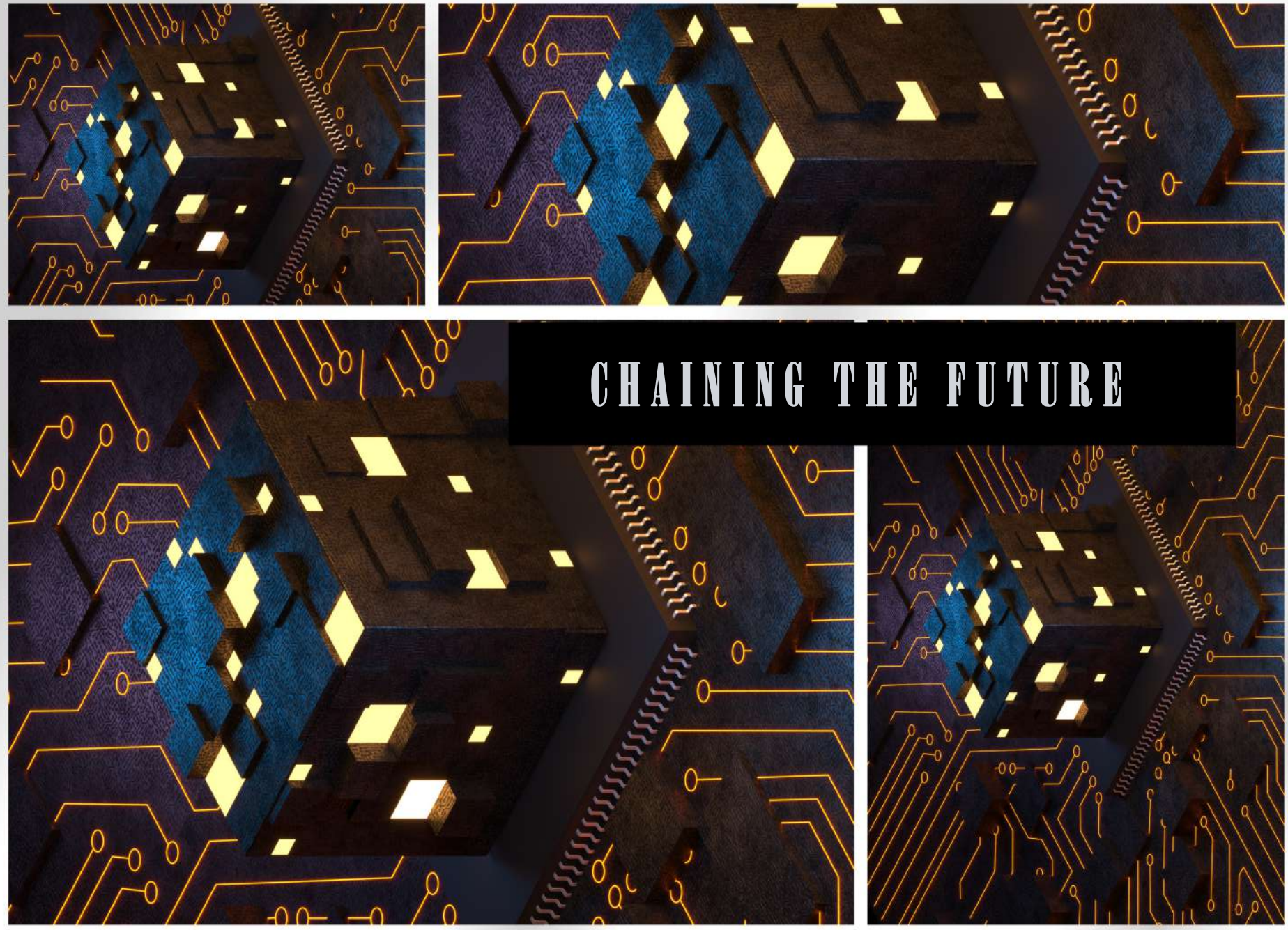
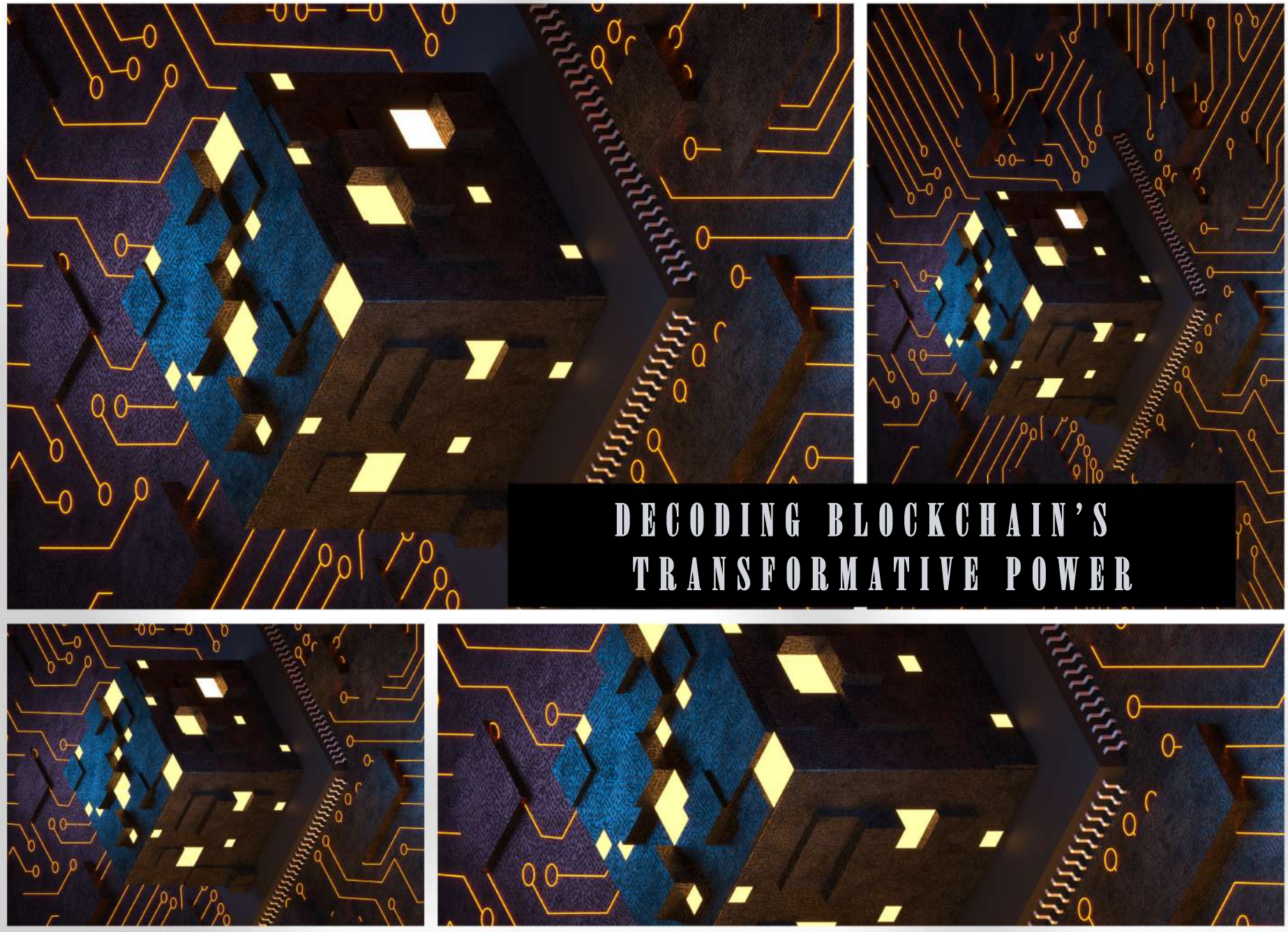
BREAKING BOUNDARIES IN TECHNOLOGY


CHAINING THE FUTURE


DECODING BLOCKCHAIN'S
TRANSFORMATIVE POWER

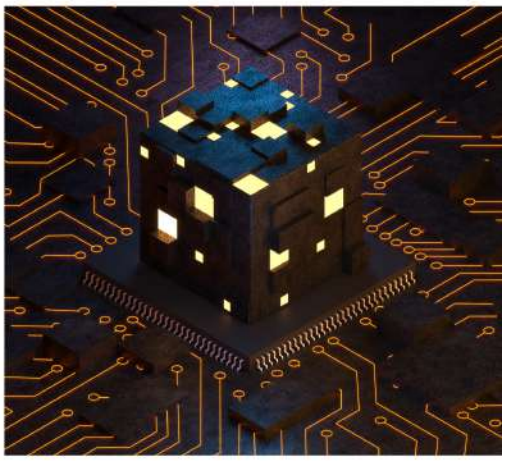
JOSHUA CHU
(朱喬華)

RISKS AND BENEFITS OF UTILIZING BLOCKCHAIN TECHNOLOGY IN MODERN TRANSACTIONS

Blockchain technology has emerged as a disruptive force in modern transactions, promising increased efficiency, transparency, and security. However, as with any transformative technology, there are nuanced risks and benefits that need to be explored in depth.

Introduction

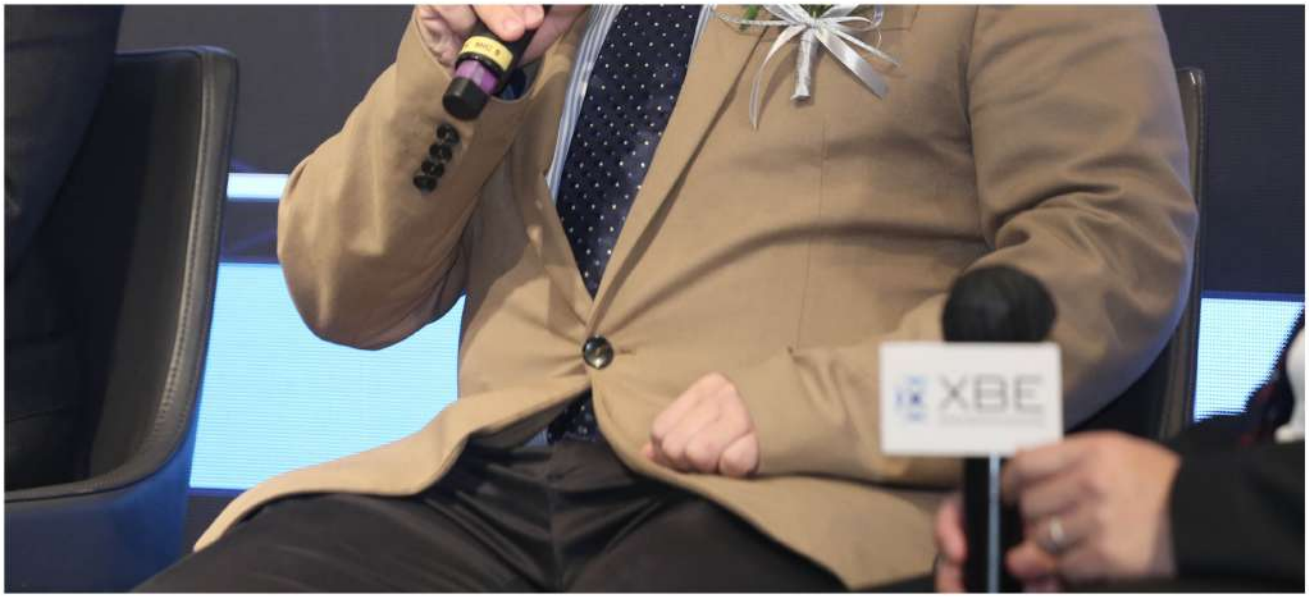
As we say yes to digital asset innovation, it is important to first take a dive into the risks and benefits of utilizing blockchain technology in transactions. To this end, this article will aim to examine:
1) emerging regulatory risks surrounding virtual asset trading platforms ("**VATPs**");
2) the evolving landscape of blockchain-based cybercrime; and
3) the potential of block-chain as a tool for dispute resolution.



"*Yes to Digital Asset Innovation, No to Cryptocurrency Speculation...*"
- Mr Ravi Menon, Managing Director, Monetary Authority of Singapore

BLOCKCHAIN
TECHNOLOGY

HONG KONG



Emerging Regulatory Risks

As Hong Kong moves towards realizing the objective of turning the city from Asia's premier financial centre into Asia's premier virtual assets hub in satisfaction of the Central Government's grand 14th 5 year plan, this new environment sees VATPs in Hong Kong currently trade "Blue Chip Cryptos" as non-security products, with the responsibility of ensuring compliance falling on the platform's responsible officer ("**RO**").

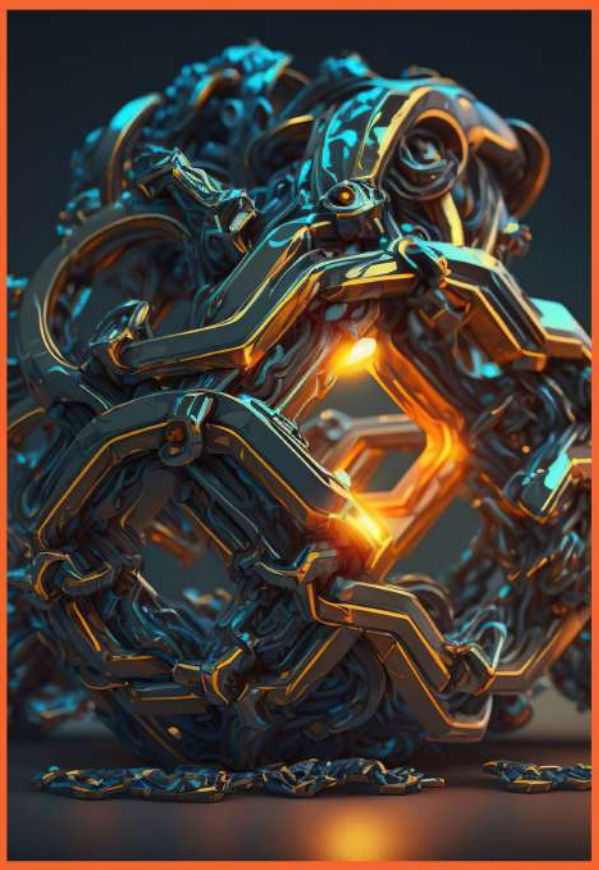
Hong Kong's receptive and optimistic attitude towards virtual assets is of course a stark contrast to recent regulatory actions by the U.S. Securities and Exchange Commission ("**SEC**") which is attempting to classify certain blue chips as security products have raised concerns and highlighted the need for clarity.

To mitigate the regulatory risks, it is essential to define what constitutes blue chip crypto and establish clear guidelines for their classification. This includes considering factors such as the underlying characteristics of the digital asset, its economic function, and the rights conferred to investors.

After all, clear justification as to how it has came to such conclusion will undoubtedly enable Hong Kong to truly take control of the narrative as it takes the lead as Asia's premier virtual assets hub, with contemporary regulators wishing to assert their views facing an uphill battle (e.g., having to articulate how they came to a different conclusion and having to convince their Courts why their views prevail).

As blockchain technology transcends geographical boundaries, it is imperative for regulatory bodies to establish international cooperation and harmonize standards. Hong Kong, as an international financial hub, should therefore actively engage in cross-border collaboration to address regulatory risks associated with blockchain technology.

This includes sharing best practices, fostering information exchange, and participating in global judicial and regulatory initiatives to ensure consistent and effective legal and regulatory aspects of virtual assets and blockchain-based transactions.



Emerging Blockchain-Based Cybercrime

Next, we shall touch upon how different jurisdictions should tackle emerging blockchain-based cybercrime. Just as emerging technologies bring about new economic opportunities for businesses, so too does it bring about new criminal opportunities for bad actors.

While blockchain technology offers enhanced security features, it is not impervious to cyber threats. To comprehensively address such emerging risks, it is essential to understand the evolving landscape of blockchain-based cybercrime.

While *it should be noted and stressed that wire fraud predominantly occurs within traditional banking networks,* blockchain-based cybercrime presents unique challenges and usually dominate headlines when it occurs due to its novelty.

These may include unauthorized access to private keys, exploitability of smart contracts, and vulnerabilities in decentralized applications ("**DApps**"). Hong Kong should collaborate with cybersecurity experts, law enforcement agencies, and industry stakeholders to identify and

mitigate blockchain-specific cyber risks effectively.

To combat blockchain-based cybercrime effectively, robust cybersecurity measures need to be implemented. This includes ensuring secure key management practices, conducting regular audits of smart contracts and DApps, and promoting cybersecurity awareness and education among users.

With the emergence of Security Token Offerings in 2023, it is therefore imperative for standards to be upheld for all such new projects. Gone are the days when a single legal opinion can suffice for launch of a new endeavour. Instead, issuers should ensure that all projects are accompanied by the following as the minimum standard:

(1) legal opinion and legal audit to ensure that all tokens represent legal and binding commercial transaction (e.g., not an air token);

(2) regulatory opinion and regulatory audit to ensure that all such products are compliant with all regulatory requirements satisfied; and

(3) smart contract audit.

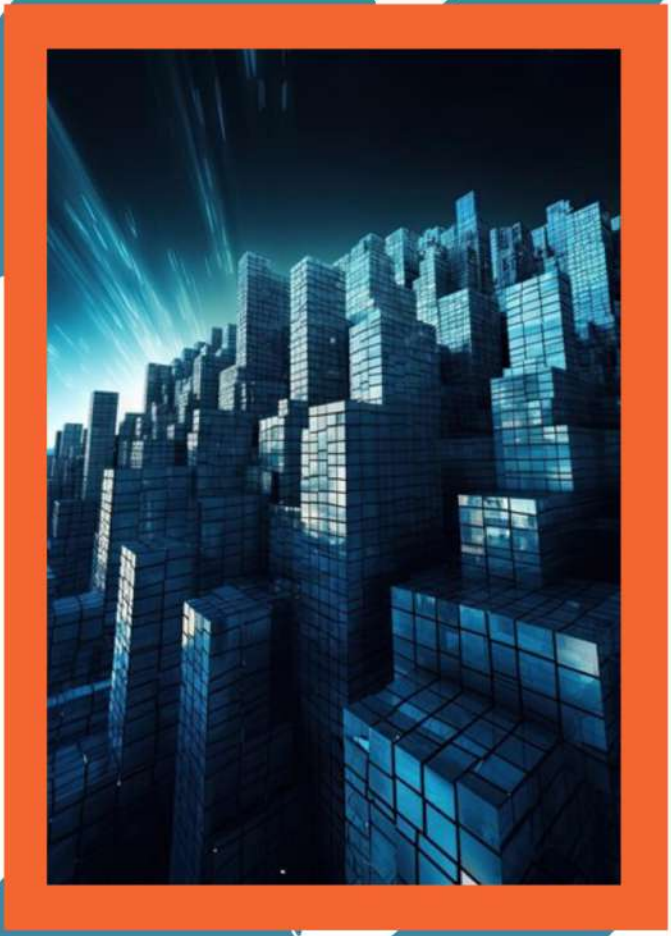
Additionally, the establishment of cybersecurity standards and certifications specific to blockchain technology can help enhance the resilience of the ecosystem. By fostering a culture of cybersecurity and proactive risk management, Hong Kong can mitigate the potential risks associated with blockchain-based cybercrime.

Blockchain as a Tool for Dispute Resolution

Blockchain technology has the potential to revolutionize dispute resolution processes by enhancing efficiency and trustworthiness. Smart contracts executed on the blockchain can automate

contractual obligations, streamline enforcement, and reduce the need for intermediaries.

Immutable and transparent records on the blockchain can provide an unalterable evidence trail, enhancing the integrity



and credibility of dispute resolution proceedings. Hong Kong should explore the integration of blockchain technology into its legal framework, ensuring compatibility with existing laws while leveraging the benefits of decentralized and transparent dispute resolution mechanisms.

Implementing blockchain-based dispute resolution mechanisms requires careful consideration of legal frameworks and jurisdictional complexities. Challenges such as cross-border enforcement, privacy protection, and the recognition of blockchain-based evidence need to be addressed.

The integration of smart contracts into the arbitration process, parties can achieve a significant advancement in the efficiency and enforceability of arbitral awards, making arbitration a true alternative to court litigation. By utilizing smart contracts deployed on a blockchain platform, the issuance and execution of the arbitral award can be seamlessly automated and recorded in a transparent and immutable manner. *This eliminates the traditional reliance on courts for the enforcement of arbitral awards, as the self-executing nature of smart contracts ensures that the agreed-upon terms and*

obligations are automatically enforced without the need for further judicial intervention.

As a result, the parties can bypass the time-consuming and potentially costly process of going through the courts to enforce the arbitral award, thereby streamlining the dispute resolution process and providing a more efficient and satisfactory resolution for all parties involved.

The utilization of smart contract-enabled arbitral awards also enhances the finality and certainty of the dispute resolution process. By leveraging blockchain technology, the recorded smart contract-based award becomes a tamper-proof and easily verifiable record of the decision.

This transparency and immutability instill a high level of trust and confidence in the enforceability of the award, eliminating the need for parties to seek court intervention to secure compliance.

The self-executing nature of smart contracts ensures that the award is promptly enforced according to its terms, reducing the potential for further disputes or delays arising from non-compliance. As a result, parties can have greater confidence in the efficacy of the arbitration process, knowing that the smart contract-enabled arbitral award provides a binding and enforceable resolution that effectively replaces the need for court enforcement, making arbitration a truly standalone and efficient alternative to traditional court litigation. It is therefore propositioned that the use of blockchain and smart contract technologies in dispute resolution will be the final step to achieving the objectives set out by the Civil Justice Reform ("**CJR**").

Hong Kong can play a leading role in shaping international legal standards for blockchain-based dispute resolution by actively engaging with stakeholders, conducting thorough legal research, and proposing innovative solutions.

can also bolster Hong Kong's position as a preferred destination for international dispute resolution.

Conclusion

All in all, the utilization of blockchain technology in modern transactions presents both risks and benefits that demand a comprehensive analysis. Hong Kong, as a global financial center, must navigate the emerging regulatory risks associated with virtual asset trading platforms and actively engage in global regulatory cooperation. Mitigating blockchain-based cybercrime requires a robust cybersecurity framework tailored to the unique challenges posed by the technology.

Furthermore, by embracing blockchain as a tool for dispute resolution, Hong Kong can enhance efficiency and trust in its legal system while addressing the legal and jurisdictional complexities that arise.

Through proactive measures and strategic initiatives, Hong Kong can position itself as a leader in harnessing the transformative potential of blockchain technology while effectively managing the associated risks.

WEB 1

WEB 2

WEB 3

WEB 4

WEB3

PAVING THE WAY FOR BLOCKCHAIN-ENABLED ECONOMIES

WEB3

Joshua Chu

JOSHUA CHU
(朱喬華)

PAVING THE WAY FOR BLOCKCHAIN-ENABLED ECONOMIES

B

Introduction

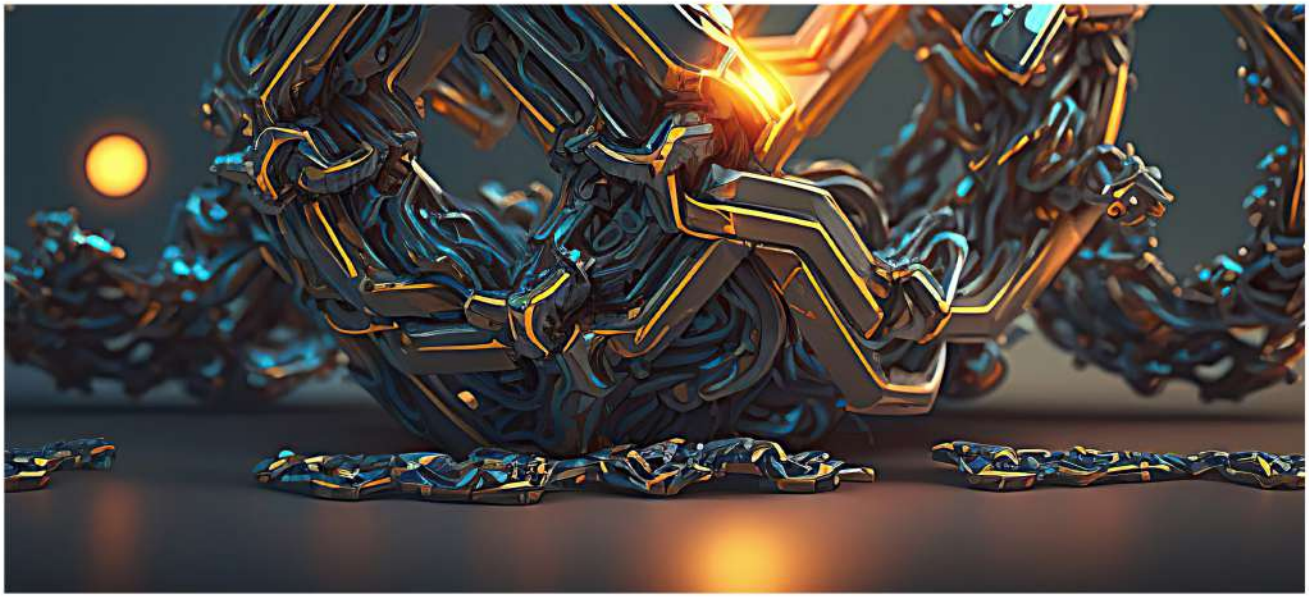
Love it or hate it, Blockchain technology continues to revolutionize various industries, and its potential is being recognized by governments worldwide. In particular, the People's Republic of China ("**PRC**") and the Hong Kong Special Administrative Region have both expressed their strong support for blockchain-enabled economies as part of their long-term development strategies.

With the PRC's 14th Five-Year Plan emphasizing the promotion of smart cities and the integration of blockchain technology, the legal landscape surrounding blockchain, tokenization, and Web3 is experiencing

significant developments. To this end, Hong Kong remains the flagship city within China pushing the envelope when it comes to Blockchain, Tokenization and Web3 ("**BT3**") adoption.

BLOCKCHAIN
TECHNOLOGY

HONG KONG



In 1878, Sir William Preece, Chief Engineer of the British Post Office once boldly proclaimed that:

> "*This 'telephone' has too many short-comings to be seriously considered as a means of communication… The Americans have need of the telephone, but we do not. We have plenty of messenger boys.*"

Then in 2023 as if déjà vu, Gery Gensler, chairman of the United States Securities and Exchange Commission, boldly proclaimed:

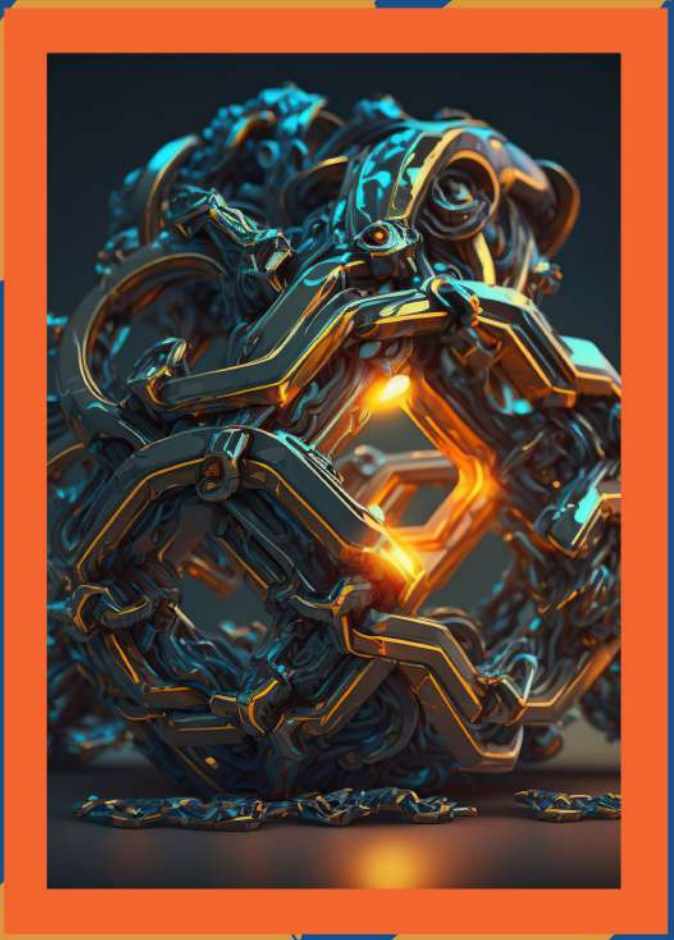
> "*We Don't Need More Digital Currency… We already have… currency. It's called the U.S. dollar… It's called the euro or it's called the yen…*"

This article will therefore endeavour to examine the PRC and Hong Kong's perspectives on blockchain-enabled economies, explore the latest developments in this field, and delve into Hong Kong's groundbreaking achievement within the BT3 space including the first Digital Ownership Token ("**DOT**") standard Security Token Offering (STO) in 2023 after the Government of Hong Kong SAR's announcement of its pivot into the BT3 economy.

PRC's and Hong Kong's Pivot to Blockchain-Enabled Economies

Recognizing the transformative and economical potential of blockchain, smart contracts and tokenization technologies and their respective role in realizing the national goal at rolling out Asia's first smart city concepts, both the PRC and Hong Kong governments have outlined their visions for blockchain-enabled economies.

The PRC's 14th Five-Year Plan lays emphasis on the development of smart cities and the integration of blockchain technology to drive innovation, enhance efficiency, and foster economic growth. This strategic focus highlights



the government's commitment to leveraging blockchain's potential in various sectors, including finance, governance, supply chain, and much more. The emphasis also highlights the Central Government's goal in transforming China's manufacturing economy to one that is of tech and service.

To this end, the Central Government have envisioned Hong Kong as an international innovation and technology hub. It has implemented measures to foster the growth of Web3, blockchain assets, and smart city initiatives. These initiatives aim to harness Hong Kong's unique ability as a premier financial centre to attract investments, promote technological advancements, and position Hong Kong as a leading global player in the blockchain space.

The emphasis is therefore an emphasis on pivoting of utilizing technology to monetize previously unmonetized aspects of Hong Kong's financial economy through the promotion of use of BT3 in its economy.

"*Crypto here to stay, must be regulated...*"
- Christopher Hui, Secretary for Financial Services and the Treasury

Dawn of Virtual Asset Trading Platform Regulations in Hong Kong

2023 has been a year of crypto infrastructure in Hong Kong. To unlock blockchain-enabled economies, it is important to understand the regulatory perimeter of virtual asset services in Hong Kong. Since 1 June 2023, the Securities and Futures Commission of Hong Kong ("**SFC**") has brought the virtual asset space under its regulatory oversight with the passage of amendments to the Anti-Money Laundering and Counter-Terrorist Financing Ordinance (Cap. 615) ("**AMLO**"). The goal of the amendments was to:

> *"...capture all the dimensions of the public's interface with virtual assets so that investors are protected, and also to address the prudential risks to financial institutions..."*

In this connection, the SFC in Hong Kong has the authority to grant licenses for engaging in activities related to virtual assets. However, not all virtual asset services require a license from the SFC.

The provision of virtual asset services will **only** trigger the licensing requirement when it involves activities such as the exchange between virtual assets and fiat currencies, exchange between different virtual assets, transfer of virtual assets on behalf of another person, custodian wallet provider services, and participation in financial services related to the offer or sale of virtual assets.

As Ms. Julia Leung, the Deputy Chief Executive of the SFC (*as she then was*), pointed out in her speech on "Embracing Innovation, Regulation and the Future of Finance Keynote address at Hong Kong FinTech Week 2022" dated 22 October 2022:

"Our preliminary view is that tokenised securities, as digital representations of traditional securities on a blockchain, should be treated in a similar way as existing financial instruments. In substance, they have similar terms, features and risks as traditional securities, so it does not seem appropriate to classify them as "complex products" merely because they are issued or traded on a blockchain…

Under this approach, a tokenised plain-vanilla bond would be classified as a "non-complex product", and therefore the firms distributing it would be subject only to the existing requirements for the distribution of conventional securities, consistent with our "same business, same risk, same rules" approach."

As such, it is pertinent to note that analysis is to be taken into account as to how a technology is being deployed. Where a technology is being deployed to be nothing more than being a documentation tool, then it ought to reason that it will not automatically trigger virtual asset related regulation, but instead, existing rule relevant to the underlying transaction will apply.

It also stands to be noted that currently, the virtual asset regulation in Hong Kong primarily focuses on the operation of a centralized virtual asset trading platform ("**VATP**"). However, the regulatory landscape may evolve, and it is crucial for businesses involved in virtual asset services to stay updated on the regulatory requirements set by the SFC.

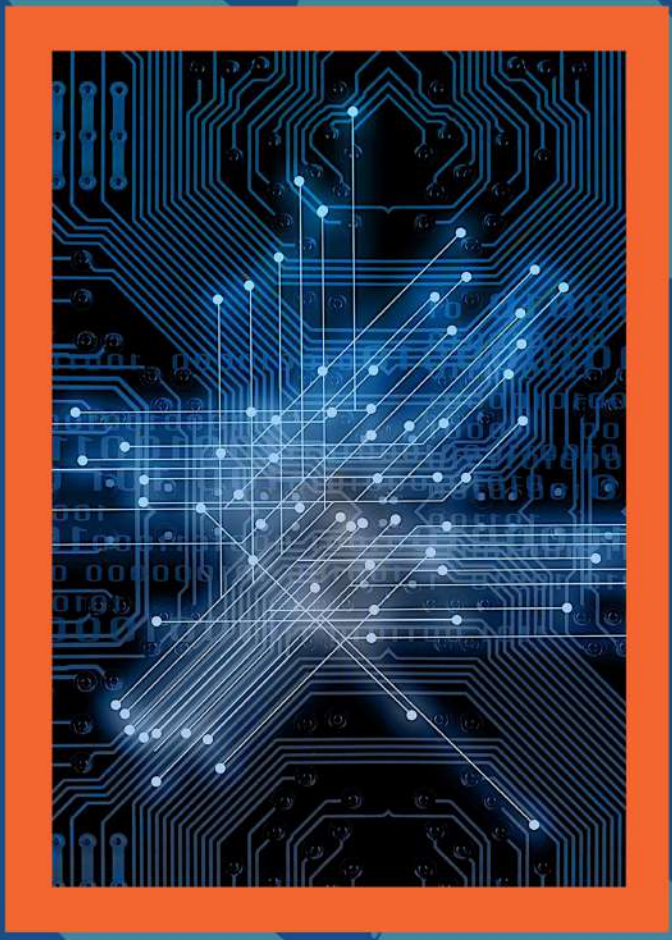
Introducing Digital Ownership Token, the Next Generation Documentation Tool

Digital ownership tokens (DOTs) are emerging as a

groundbreaking solution to the challenges posed by non-fungible tokens (NFTs) in the realm of property law. With the potential to reshape the future of documentation, DOTs utilize blockchain and NFT technology to embed legally binding ownership documentation and ensure the secure transfer of assets.

For some time now, the PRC government have emphasized that it is keenly aware of the dangers posed by blank tokens (tokens which in reality have no legal documentation within it and are merely synthetic products – also known as air tokens). DOT solve this concern by imposing standards whereby tokens that wishes to be validly issued must represent objects of value and encapsulate relevant legal rights that it purports to represent.

Unlike traditional NFTs, which often lack legal rights conveyed by smart contracts, DOTs provide clarity and trans-parency to purchasers. By incorporating a unique identifier and accompanying legal documents, such as sale and purchase agreements, transfer deeds, and independent valuation reports, DOTs enable buyers to ascertain the true value and underlying assets they are acquiring. This addresses the previous limitations of NFTs,



where value fluctuation and uncertainty were pervasive due to the absence of a reliable basis for assessing fair value.

Moreover, DOTs offer the benefits of seamless and

paperless property transactions. By digitizing assets and facilitating secondary trades through DOTs, the legal profession can achieve both commercial goals of quick transactions and sustainability objectives

This transformative approach streamlines the process, eliminating the need for time-consuming paper transactions and enabling instantaneous transfers of ownership. This in turn achieve the Central Government's overarching objective to promote market activity that paper based institutions are unable to deliver.

As the next generation documentation tool, DOTs have the potential to revolutionize property law by providing a secure and transparent framework for ownership rights. With their ability to embed legal contracts, clarify ownership terms, and facilitate efficient transactions, DOTs pave the way for a future where property rights are seamlessly transferred and protected in the digital realm.

Milestone: Hong Kong's First DOT Standard STO in 2023

Hong Kong achieved a significant milestone in its blockchain journey by successfully conducting its first Digital Ownership Token (DOT) standard Security Token Offering (STO) in 2023. The STO, marked a pivotal moment for the adoption of blockchain technology in the financial sector.

The DOT standard STO introduced greater efficiency, security, and transparency for bondholders by fully tokenizing the bonds, eliminating the need for third-party custodianship. This pioneering approach allowed investors to directly hold and control their securities, eliminating complex trust structures prevalent in earlier STO projects.

The successful completion of the DOT standard STO in Hong Kong exemplifies the region's commitment to embracing blockchain technology and its potential to revolutionize

traditional financial systems. It sets a precedent for future STO projects and positions Hong Kong as a leading global hub for blockchain-based financial innovations.

Conclusion

The PRC and HKSAR governments' recognition of blockchain's potential has paved the way for the development of blockchain-enabled economies. The legal landscape surrounding blockchain, tokenization, and Web3 is evolving rapidly, with governments and industry stakeholders working together to establish robust frameworks and facilitate innovation.

Hong Kong's first DOT standard STO represents a significant milestone in this journey, showcasing the region's commitment to embracing blockchain technology and its potential to reshape the financial landscape.

Furthermore, understanding the regulatory perimeter of virtual asset services in Hong Kong, as outlined in the VATP regulation, is essential for businesses operating in the virtual asset space to ensure compliance with the licensing requirements set by the Securities and Futures Commission.

BLOCKCHAIN-ENABLED ECONOMIES

JOSHUA CHU

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Joshua Chu is a qualified lawyer practicing in Hong Kong. Joshua is currently serving as the Group Chief Risk Officer at Coinllectibles™, Marvion™ and XBE (the first publicly traded blockchain DOT™ technology conglomerate in the US).

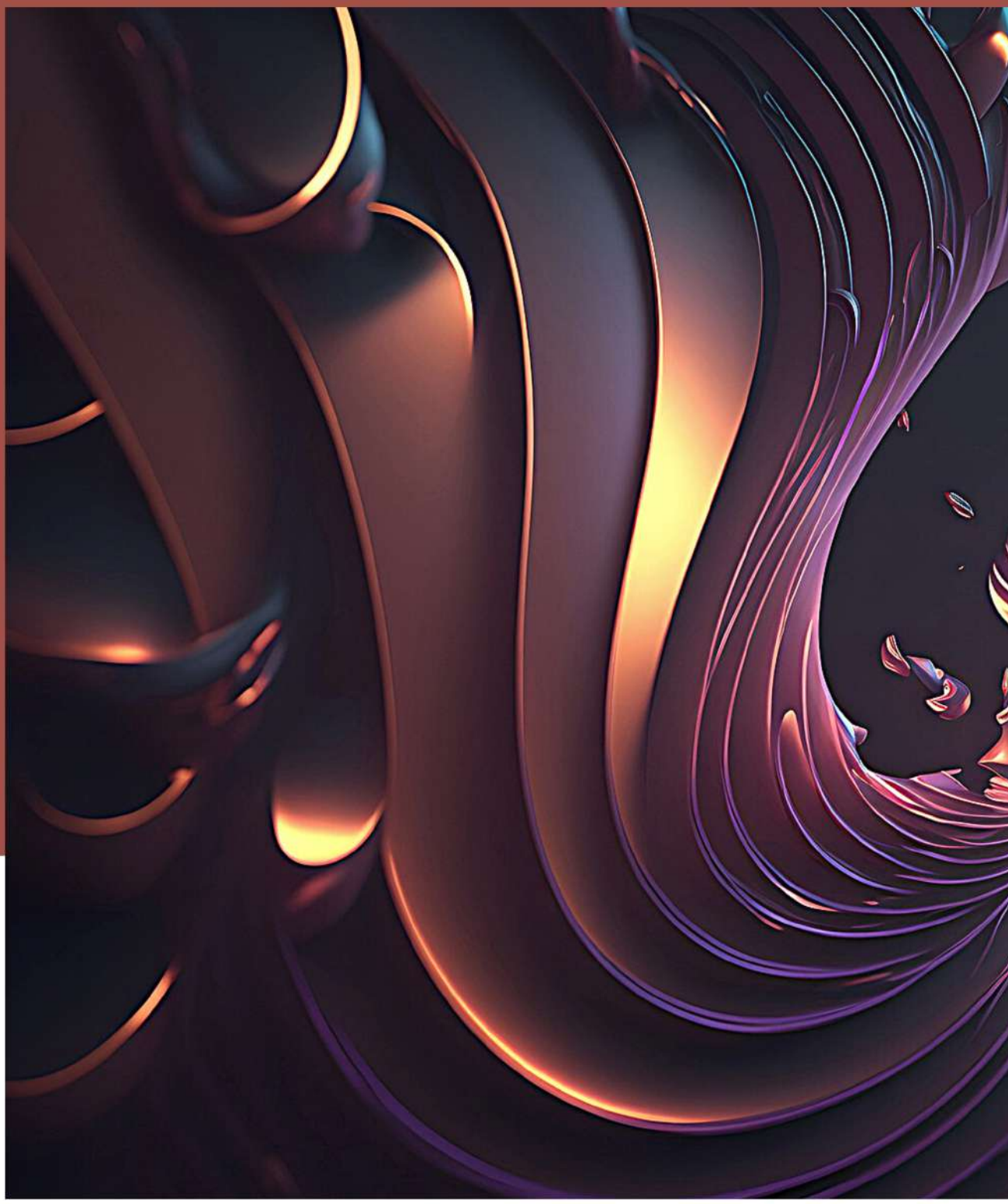
Aside from his role as Group CRO, Joshua is also currently a Senior Consultant at Prosynergy (a regulatory consulting firm founded and led by ex-SFC Regulators) and Of Counsel with Hauzen LLP in his role as a private practice lawyer, being part of the Blockchain, Tokenization and Web3 ("**BT3**") Practice Group.

Before becoming a lawyer, Joshua worked in the healthcare industry serving as the IT department head at a private hospital as well as overseeing their procurement operations. Since embarking upon his legal career, Joshua has conducted a number of novel cases (*many of which resulted in landmark decisions*). These included Hong Kong's first crypto litigation in 2015, Hong Kong's first court order for service via data room in 2020, and Hong Kong's first DOT standard STO in 2023.

Joshua is Co-Chair of The Hong Kong Web3 Association.

Education:
City University of Hong Kong
Post Graduate Certificate in Laws

City University of Hong Kong
Juris Doctor (Distinction)



AI Wave Riding

Yusuf Wilajati Purna

Riding the AI Wave:

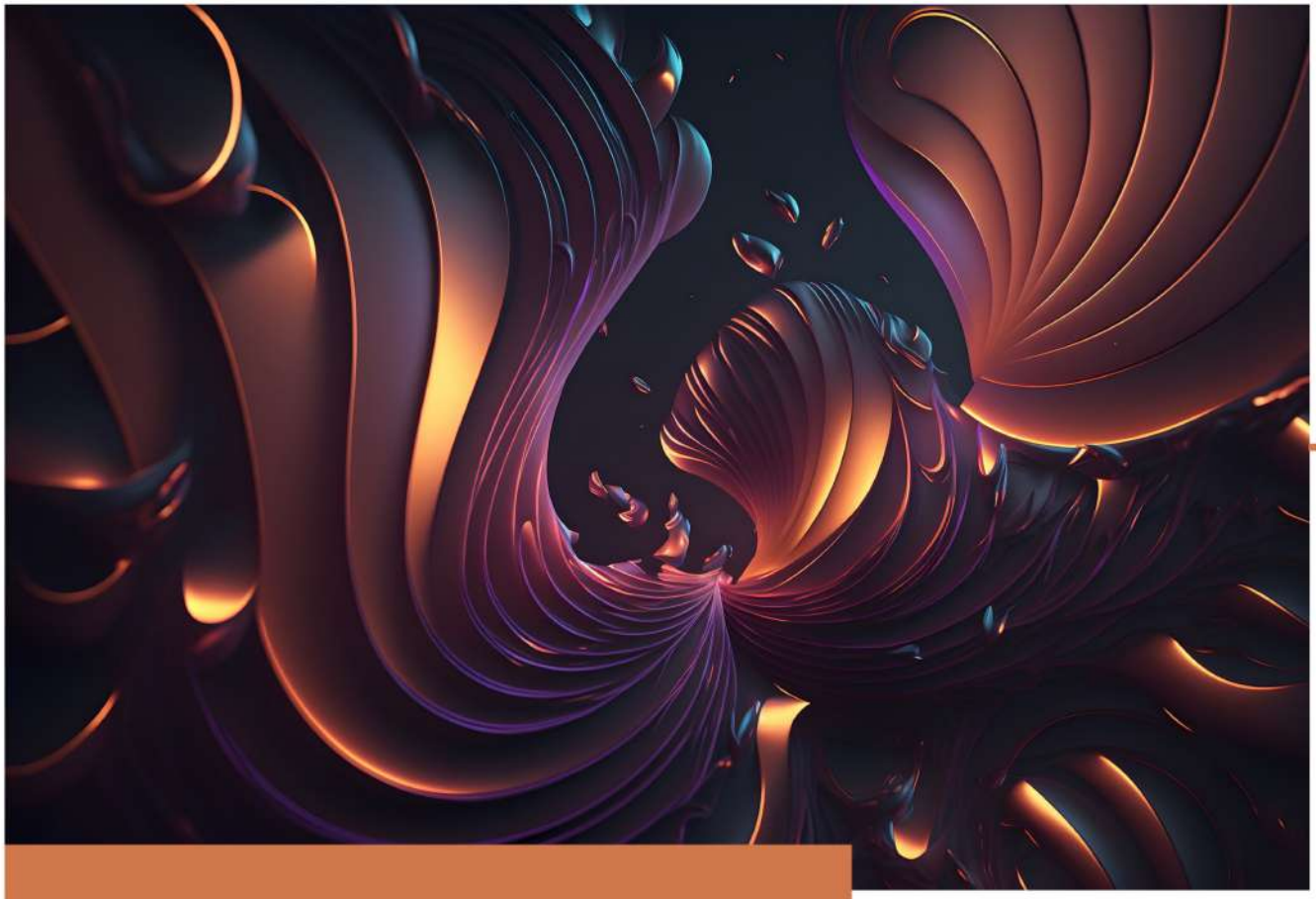
Navigating Cybersecurity's New Frontier

In a bustling metropolitan city, sandwiched between a café and an electronics store, sits a mid-sized corporation. With its inviting signboard and modern interiors, it could easily pass for a high-tech startup. Inside, staff are enthusiastically employing AI tools like ChatGPT to enhance productivity. Just like countless other organizations worldwide, they've embraced the transformative power of AI. However, beneath this veneer of technological sophistication lurks a potentially hazardous oversight: the looming specter of cybersecurity risks, often eclipsed by the dazzling allure of AI capabilities.

The narrative is not confined to a single corporation; it reverberates across sectors and borders. The rapid embrace of AI tools signals a thrilling era of digital transformation, but it also serves as an urgent cautionary tale. Adopting AI-driven technology is no longer optional for modern enterprises, particularly as malicious actors also employ AI to fuel their devious schemes. This escalating cat-and-mouse dynamic elevates the need for continual upskilling and learning. Yet, in the rush to join the AI bandwagon, many organizations unwittingly neglect to consider risks like data breaches. This exuberant, yet myopic, adoption illustrates the dangers of forging ahead without a strategic roadmap.

What, then, is the remedy? The solution resides at the intersection of People, Process, and Technology. On the human element, it's essential for organizations to invest in educating both their technical and non-technical staff. This lays the groundwork for an AI-competent workforce that understands not just the "how," but also the "why," particularly concerning AI's pivotal role in cybersecurity. Mere awareness, however, falls short. Organizations need well-defined AI usage policies and guidelines to serve as their navigational compass through this intricate yet risky terrain. In the void left by comprehensive governmental regulation, these organizational directives act as critical safeguards against potential missteps, helping to mitigate the threat of "shadow AI," where rogue or unregulated AI applications can cause untold damage.

An additional layer of complexity arises from the dynamic nature of AI itself. As the technology evolves, so too do the threats and vulnerabilities, making it imperative for guidelines and strategies to be adaptable and forward-looking. This constant flux requires stakeholders to be agile, constantly updating their risk models and strategies to counter emerging challenges. The shift towards AI in cybersecurity is not a one-time event but an



ongoing process, necessitating long-term commitment from every corner of an organization.

As we teeter on the edge of a cybersecurity transformation propelled by artificial intelligence, the onus to navigate safely falls on each of us—businesses, employees, and even the engaged reader. For companies, this is a summons to seamlessly weave cyber risk management into their overarching AI strategy. For employees, it's a call to perpetual learning, welcoming the new tools while also grasping their associated risks. And for you, dear reader, the journey offers a unique opportunity: to engage in meaningful discussions, to demand comprehensive AI protocols from your institutions, and to advocate for an educated approach to AI adoption. In an era increasingly governed by AI, foreknowledge is more than just power—it's essential for survival.

YUSUF PURNA

YUSUF PURNA

YUSUF PURNA, Tokyo, Japan. Chief Cyber Risk Officer at MTI Ltd. and a recognized authority in Information Technology, Yusuf Purna boasts over 25 years of focused expertise in cybersecurity and artificial intelligence.

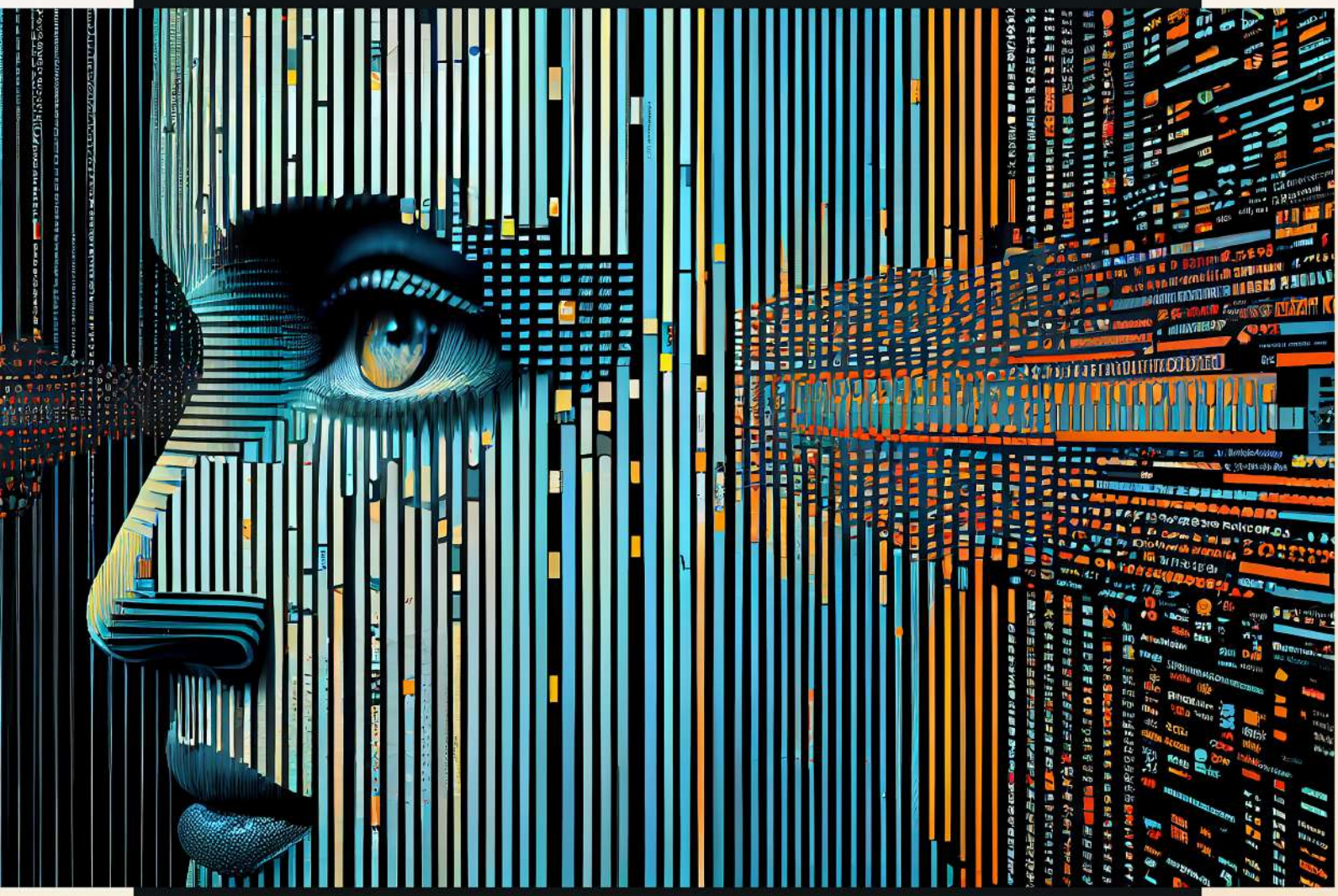
An alumnus of Shizuoka University, he has been instrumental in advancing robust cybersecurity measures, IT governance, risk management, and compliance protocols.

Mr. Purna's accomplishments include executing comprehensive cybersecurity audits and formulating security frameworks that align IT projects with organizational objectives. His dedication to the field is evident in his continual exploration of AI and model-based reasoning, ensuring the development of innovative solutions.

Skilled in methodologies like CMM, Lean Six Sigma, and ITIL, he offers a comprehensive understanding of IT governance through COBIT.

His information security insights are enhanced by his proficiency in ISO 27001, NIST CSF, and NIST RMF standards. Furthermore, he upholds stringent compliance standards, well-versed in J-SOX, SOX, FSA, and GxP regulations. On the technological front, Mr. Purna's expertise spans cloud computing, virtualization, IP telephony, wireless networks, and more. His professional acumen is supported by certifications such as CISSP-ISSAP/ISSEP/ISSMP, CCSP, CGRC, and Microsoft Certified Cybersecurity Architect Expert.

Yusuf Purna remains a respected figure in the IT realm, with significant contributions to cybersecurity and AI, and is a trusted voice on related industry topics.

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