

Web3 and AI: Challenges and Opportunities

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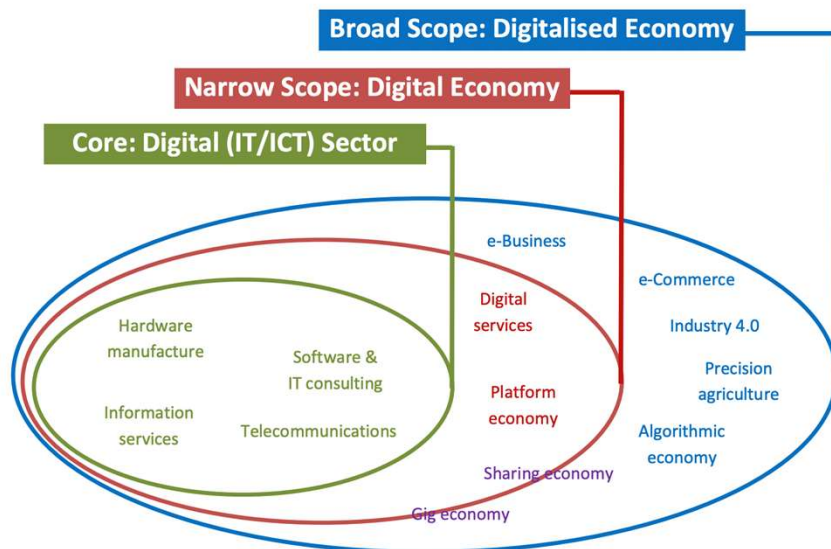
Hong Kong: All-in on Web3 Digital Economy

- On October 31, 2022, Hong Kong announced the “[Policy Statement on Development of Virtual Assets in Hong Kong](#)”, launching a major initiative to develop its digital economy
- A strong commitment to Web3 and Metaverse
- Redefine Hong Kong's regulatory framework for digital assets and digital economy
- Hong Kong's development of virtual assets industry and Web3 is picking up pace in 2023. Hong Kong is now a focal point of the whole world in this space, with a series of measures to attract businesses and talents in Web3 to the city.

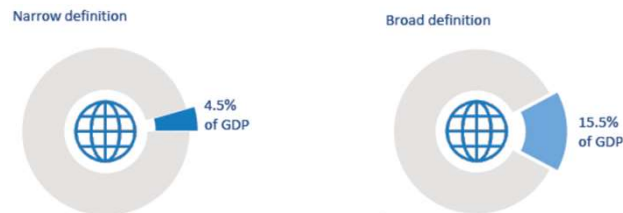


Digital Economy is Transforming Across the World

1. The digital economy today is classified into three sub-categories:



2. Size of the digital economy ranges from 4.5 to 15.5% of global GDP



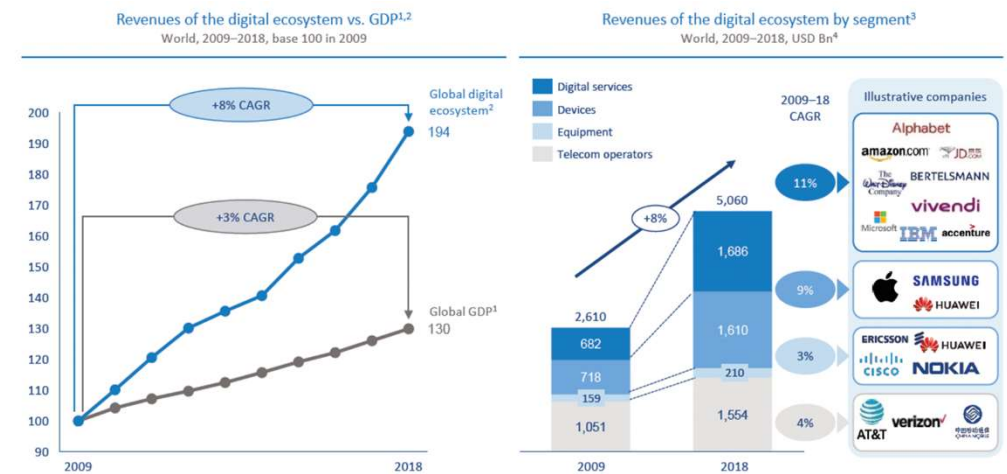
Source: Rumana Bukht & Richard Heeks; Arthur; UNCTAD.

3. Trends of digital economy

- Global GDP – a CAGR of 3%
- Digital ecosystem revenues – a CAGR of 8%

4. By segments of digital ecosystem revenues growth:

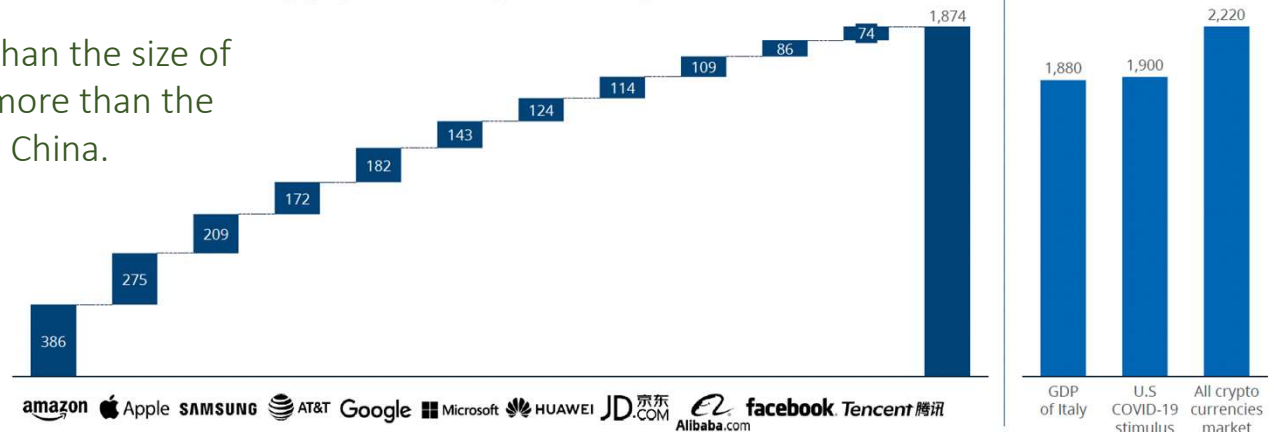
- Digital services & platform players – a CAGR of 11%
- Digital devices – a CAGR of 9%



Source: Thomson Reuters, World Bank, Arthur D. Little; Note 1: GDP based on purchasing-power-parity growth of regions captured in the digital ecosystem (same scope); Note 2: Digital ecosystem: top 30 players by 2018 revenues in each category; Note 3: Top 30 per category by 2018 revenues; Note 4: Constant USD

Web 2.0 – Monopoly

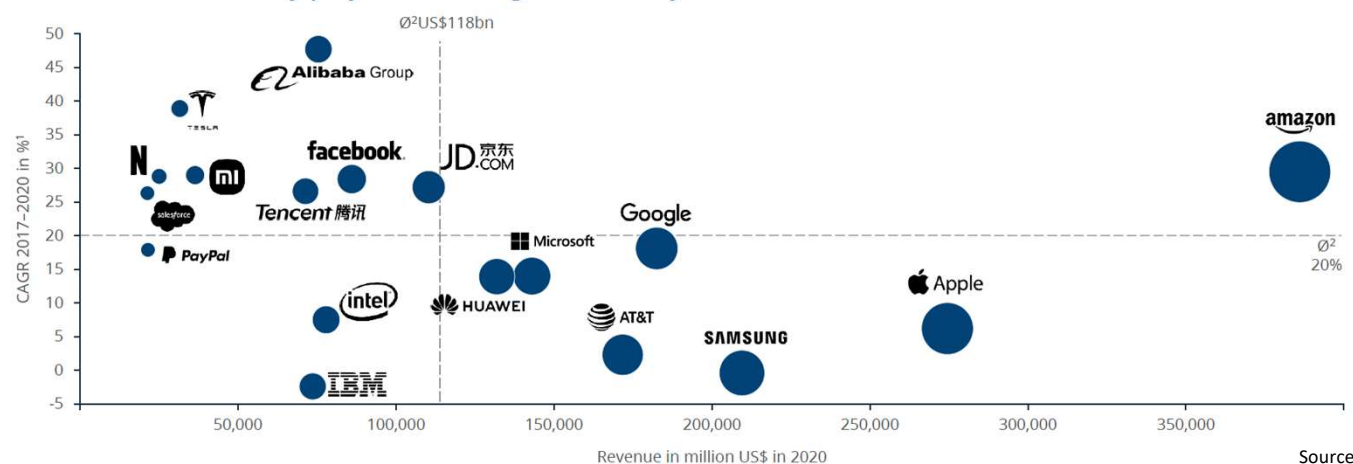
Revenues of selected key players of the digital economy in billion US\$ in 2020



The market value of Apple is slightly more than the size of Italy's economy, a developed country, and more than the economy of all developing countries except China.

From 2005-2020, income of Google grew by 2000%, and Amazon by 4000%.

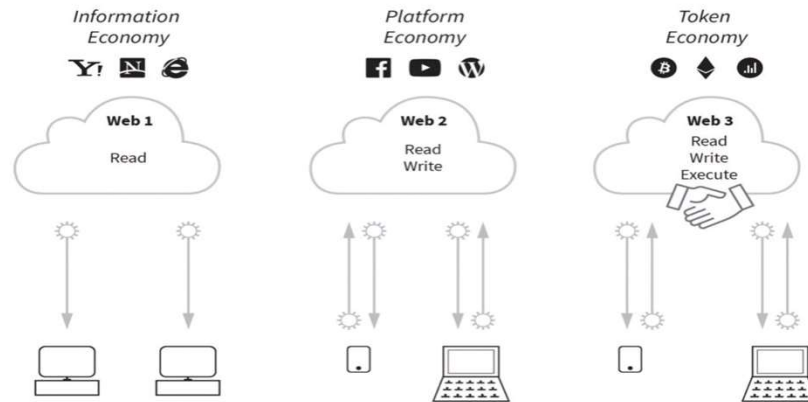
Revenues of selected key players of the digital economy and CAGR¹



Source: Statista

The Web is Evolving . . .

The Evolution of the web



Web 3 vs. Web 2

	Companies	Function	Information Flow	Protocols	Rules	Content Creation	Content Ownership
Web 1.0	Netscape, Yahoo	Read	1 way - static	Open source	Standardized	Companies	Companies
Web 2.0	FAANG	Read, write	2 way - dynamic	Private and siloed	Abstract	Users	Companies
Web 3.0	TBD	Read, write, own	2 way - dynamic	Open source	Standardized	Users	Users

What is Web3?

The concept was first proposed by Gavin Wood in 2014

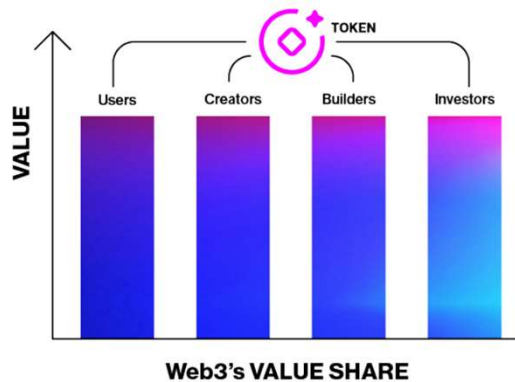
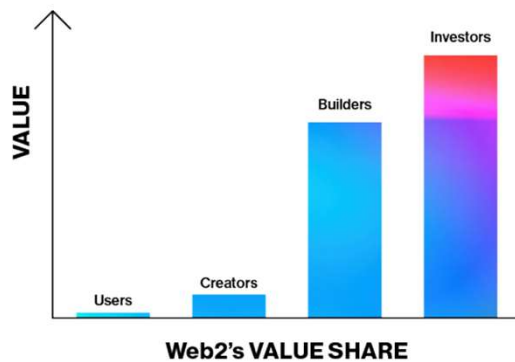
- Web 2.0 has a highly unfair policy that grants platforms ownership of all content, regardless of who created it, e.g. [Facebook \(Meta\)](#).
- The concept of Web3 is that the content belongs to the creators. Platforms should assist creators in building value and receiving rewards.
- Web3 often emphasizes decentralization and distributed systems. However, I personally believe that this is not essential. The concept of Web3 can be realized in a centralized or semi-centralized form.
- Another important aspect of Web3 is the [re-evaluation and re-recognition of value](#). Popular examples of this are GameFi and X2Earn (X2E).
- Metaverse and Web3 will be closely related.



In the age of growing inequality, Web3 is well-aligned with “common prosperity”

Web 3.0 : A New Paradigm for Creator Value

Web3 platforms offer fairer economic terms for users



Web3 platforms have drastically lower take rates than the internet giants today

Take Rates of Popular Creator Platforms

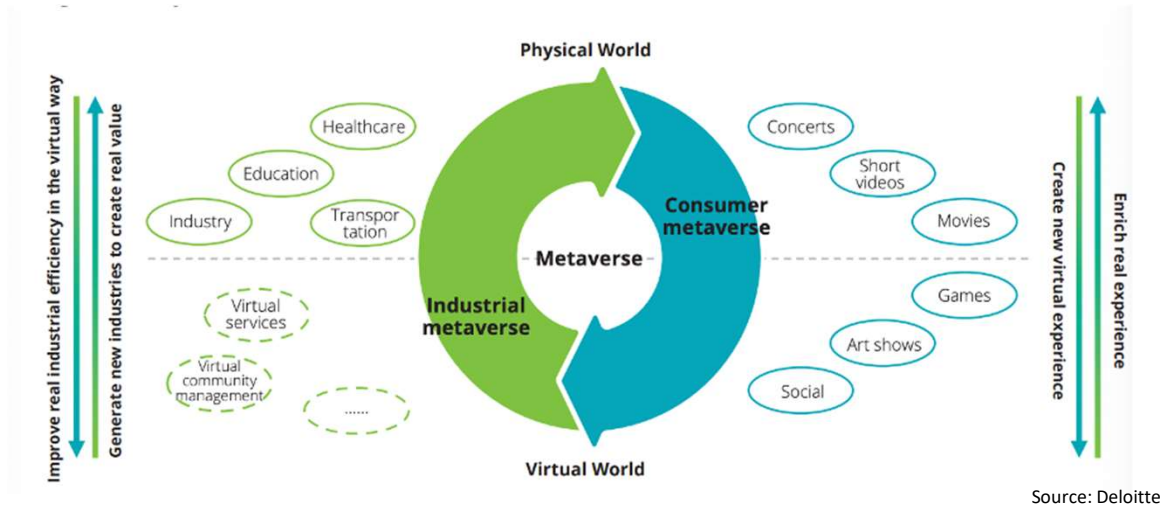


Compare Meta's nearly 100% take-rates across Facebook and Instagram to NFT marketplace OpenSea's 2.5%.

According to A16Z analysis, web3 paid out \$174,000 per creator, while Meta paid out \$0.10 per user, Spotify paid out \$636 per artist, and YouTube paid out \$2.47 per channel.

What is the Metaverse ?

Metaverse is the ultimate ecosystem of advanced digital economy



- The metaverse depicts a digital world that is both parallel and integrated with the real world, where we can unleash our infinite imagination.
- Many people **mistakenly equate it with immersive AR/VR/MR experiences, digital twins, and Play2Earn games, etc.** These are only a small part of the metaverse.
- We haven't even entered **Metaverse 1.0** yet.

The Many Challenges of Web3

Among them:

- **Scalability:** Distributed systems have limited capacity, hard to support a large-scale Web3 ecosystem. But technologies such as Layer 2 and sharding can partially address it
- **Sustainability:** The popular GameFi and X2Earn (X2E) business models have significant sustainability issue. There is currently suspicion of Ponzi schemes surrounding many Web3 projects
- **Breaking Barriers:** The development of a healthy and sustainable Web3 ecosystem requires breaking the barriers set by Web2 monopolies and many other traditional barriers. Otherwise Web3 business models will be narrowly restricted to a few niche areas
- Two Recent developments may pave way for true emergence of Web3 era!
 - Emergence of RWA (Real World Assets) tokenization
 - Development of AI technologies such as Chat-GPT offer a watershed moment for breaking many barriers for Web3.

AIGC Era: You can be a“Creator”



AIGC Era: Unleashing Creativity and Breaking Barriers



Author	ChatGPT
Illustrator	Midjourney
Publisher	Ammaar Reshi
Publication date	December 4, 2022
Pages	14

- All these images are created by Midjourney
- The bottom picture won the top prize in a highly competitive digital art competition
- The one on the right was a children's book created by Ammaar Reshi on a weekend
- Midjourney has a total of 11 employees, collaborating over Discord.
- Another text-to-image platform Stable Diffusion has a similar story

AIGC Era: Unleashing Creativity and Breaking Barriers



I would like to start a Web3 startup using ChatGPT to provide financial services. The service will be using ChatGPT and other AI tools to evaluate risks of financial products by analyzing carefully their prospectus. Can you help write a BP?

Sure! Here's an outline for a [business plan](#) for your Web3 startup using ChatGPT to evaluate financial products' risks. Remember that this is just a starting point, and you should customize and expand the plan to address the specific needs of your business.

1. Executive Summary

- Briefly introduce your Web3 startup, its mission, and objectives.
- Summarize the market opportunity, target customers, and your unique selling proposition.
- Outline your revenue model and growth strategy.

2. Company Overview

- Provide a detailed description of your company, its legal structure, and ownership.
- Describe the management team and their relevant experience.
- Explain the company's [core values](#) and culture.

3. Market Analysis

- Describe the financial services market landscape and identify key trends, opportunities, and challenges.
- Conduct a [market segmentation analysis](#) to identify your target customer segments (e.g., retail investors, institutional investors, financial advisors).
- Analyze your competition and identify your competitive advantages and differentiators.

4. Services & Technology

- Explain the core services your startup will offer, such as [risk evaluation](#) of financial products based on prospectus analysis.
- Describe the [technology stack](#), including ChatGPT and other AI tools, and how they will be utilized to deliver your services.
- Detail any proprietary algorithms or technology you will develop.
- Discuss any relevant partnerships or collaborations with other Web3 or AI platforms.

5. Sales & Marketing Strategy

- Outline your go-to-market strategy, including how you will attract and retain customers.
- Describe your sales process, pricing model, and any discounts or promotions.
- Detail your marketing strategy, including online and offline channels, content marketing, and public relations.

6. Operations & Infrastructure

- Describe your [operational processes](#), including customer onboarding, [service delivery](#), and customer support.
- Outline your [team structure](#) and [hiring plan](#) to support operations.
- Discuss any technology infrastructure needed to support the business, such as servers, security measures, and data storage.

7. Financial Projections & Analysis

- Provide a detailed [financial projection](#) for the first three to five years, including revenue, expenses, and profit margins.
- Include a break-even analysis to determine when your startup will become profitable.
- Conduct a [sensitivity analysis](#) to assess the impact of changes in [key variables](#) (e.g., customer acquisition costs, market

- ChatGPT is an enabler for numerous tasks that would otherwise be inaccessible by even most of the highly educated people
- Numerous new plugins and projects based on ChatGPT or similar technologies are springing up to solve various specific tasks, e.g. PDFGPT, Auto-GPT, Agent-GPT, etc

AIGC as Enabler of Web3

- **Breaking Barriers!** Think of Midjourney and Stable Diffusion. They are Web3 enablers and operate like Web3 companies (collaborative and distributive). Same as many ChatGPT based projects. They will break multiple barriers that have previously hindered the **true development of a Web3 ecosystem**
- **Sustainability:** Before AIGC era, there were very few long-term profitable Web3 business models. With AIGC, numerous opportunities have opened up to allow creators to generate value and retain almost 100% of them. **This is at the core of Web3!**
- In the AIGC era, **Web3 might even become a norm** in the future development of many sectors. Who would have thought that today behemoths like Google, big financial institutions, Big 4 and others would worry about their own future
- **But!** **Let us not overlook or gloss over the potential danger of AI 3.0 ...**

Web3 Digital Economy and Globalization

- We have seen a lot of talks about “decoupling” and retreat from globalization.
- We have seen a more polarized world today
- Yet Web3 digital economy is a true globalized economy that spans across countries, nationalities and ethnicities. It is (almost) [immune to geopolitics](#). Web3 is one of the few key pieces today that connects the world together
- Digital Economy is the fastest growing part of the economy of the world (as well as China), and it now accounts for approximately 40% of the GDP.

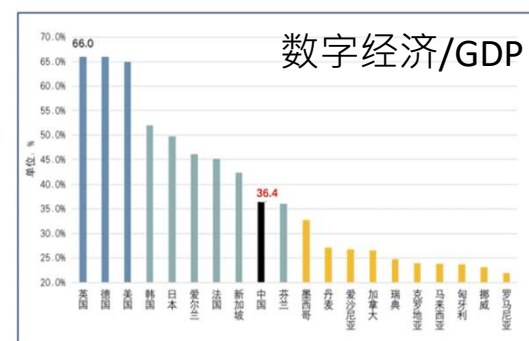
Thank You 谢谢!

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中国数字经济和元宇宙的发展

2022年1月，国务院印发了《数字经济发展第十四个五年规划（2021-25年）》，这是进一步推进数字经济发展的第一个五年规划。**2022年两会中，有7个发展元宇宙的提案。**

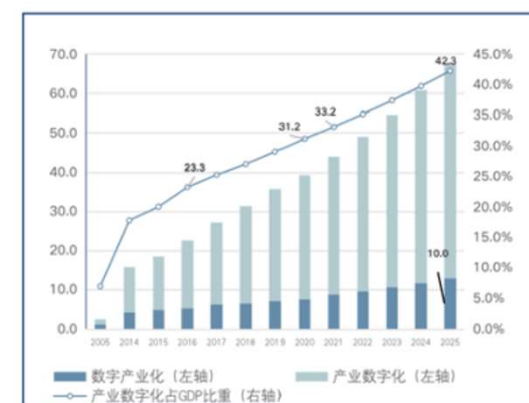
从宏观上看，中国数字经济占比约为36.4%，在全球范围内居中。2020年，数字经济增速为9.7%。



到2025年，核心数字经济产业增加值占GDP比重有望从2020年的7.8%提高到10%。

到2025年，产业数字化对GDP的贡献率将超过40%。

数字产业化和产业数字化总计，到2025年，数字经济将占中国GDP总量的一半。



Source: Zhaoshang Security; Jiang Xiaojuan

• Web3.0 和元宇宙治理：DAO

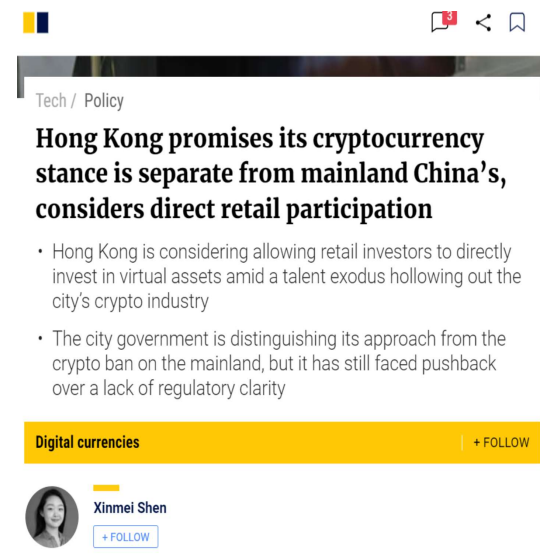
- 如果说工业革命代表了工业生产与管理的自动化和智能化，那么DAO (Decentralized Autonomous Organizations) 代表了治理 (Governance) 的自动化和智能化
- Web3.0和元宇宙以去中心化为框架，在这样体系下的治理是一个挑战（如何治理“乌合之众”？），同时还有法律监管的挑战（例如：CFTC 起诉 DAO）
- 有些 DAO 采用极端的“民主投票”方式，效率很低（e.g. Panda DAO），风险也不好控制。这种方式也不完全符合Vitalik 的愿景
- “民主投票”本身受限于数学的约束，有众多（数学上）不可解的问题与挑战（Arrow's Theorem）
- 但是毫无疑问，DAO 在许多场景将会成为一个强有力的工具（例如二次方投票）。很有可能 DAO 会在中心化/去中心化结合的场景中大量被采纳。



• 解读10月31日香港虚拟资产发展政策宣言

- 绝大多数报道和解读都把重点放在允许零售投资者买卖虚拟资产。事实上这只是宣言中信息的很小一部分。
- 同一天，证监会（SFC）副行政总裁梁凤仪（Julia Leung）也做了一个相关的演讲，给出了更多的澄清。
- 我的解读：有意愿布局一盘大棋。这盘棋涉及面很广，包括了我们现在了解的各类虚拟资产、元宇宙、稳定币、数字港币（CBDC）。如果实施，香港的数字经济未来是光明的。
- 魔鬼在细节！目前还有许多不确定性，我们拭目以待。

香港的政策和走向将会影响世界其他地区的发展



- 政策宣言解读 1：更合理明确的监管框架

- 反复提到“**相同业务、相同风险、相同规则**”的原则。这里的重要意义是：如果一个产品符合三个相同原则，那么对它可以在香港现有的非常完善的金融监管体系下监管
- 梁凤仪女士通过对比“复杂产品”和“非复杂产品”给出了更多的澄清。
“非复杂产品”符合三个相同原则，可以作为传统金融产品来监管，允许零售投资人参与
- 非复杂虚拟产品包括：各种众所周知的区块链的币（如BTC、ETH等）、NFT、虚拟资产ETF、代币化证券（Security Token）
- 复杂虚拟产品包括：资产支撑的代币、收入流代币、虚拟资产的衍生品。这些产品只允许专业投资者参与
- 对 DeFi 总体是消极的，至少还是在探索阶段。

- 政策宣言解读 2：虚拟资产与传统金融的整合

- 宣言里谈到了将对智能合约的合法性制定政策。这是一个重要的信号？
- 香港政府推出一个官方的 **STO**, 代币化绿色证券（**Project Genesis**）。这个 **STO** 发在联盟链上
- 推出稳定币和数码港币（**CBDC**）。可以看出，香港政府有意愿打通并整合虚拟资产和传统金融。这步棋似乎很大
- 所有这一切都是为了未来大力发展 **Web3.0** 数字经济和元宇宙奠定一个坚实的基础。

- 香港Web3.0 数字经济其他建议

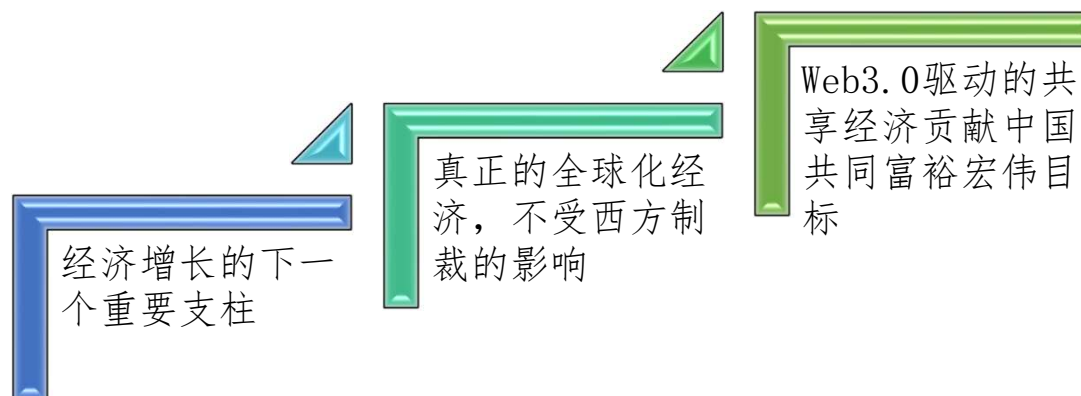
- 建立一个类似于 Estonia E-Residency 的数字公民系统，作为推动香港Web 3.0 数字经济的必要生态
- 建立“元宇宙香港”(MetaHK)，力争将香港打造成元宇宙的最伟大最智能城市
- 推出一个有效的人才计划吸引大批数字经济人才落地香港。注意这里我们不能只考虑所谓的“高端人才”，打造生态必须有各个层次的人才，包括工程师、码农。
- 建立一个 Public-Private Partnership 去中心化资助投资平台，合理有效的赋能 Web3.0 生态。

谢谢大家!

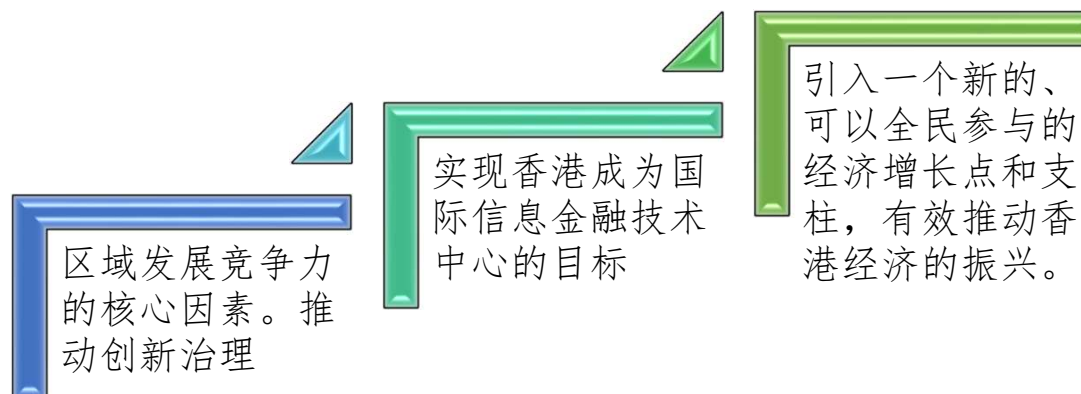
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- 我们为什么要发展数字经济和元宇宙？

- 对中国



- 对香港



• 打造香港为元宇宙中最伟大的城市

香港的优势

- 世界金融中心，有金融科技基础
- 一国两制：背靠一个14亿人口的大国，同时融合了国际化的经济生态
- Web3.0数字经济的起源地之一

香港需要做什么？

- 大力投资数字经济的基础设施
- 政府监管：持开放态度，积极拥抱数字资产监管，医改过去消极、“不该我管”的态度。建立一个合理的，健全的，透明的数字经济政策框架
- 有意识的努力把香港打造成中国数字经济发展的桥头堡，同时成为中国数字经济接轨世界的桥梁
- 大尺度建立一个科技创新与数字经济人才计划
- 可以参考新加坡的数字经济政策和发展方案



- 推动香港Web3.0 数字经济几个具体建议

- 建立一个类似于 Estonia E-Residency 的数字公民系统，作为推动香港Web 3.0 数字经济的必要生态
- 实质性推动 HK Inter-operability Framework (HKIF)。欧盟的 European Inter-operability Framework (EIF) 走的很前，相比之下香港虽然也在做，但是进度不够快
- 推动数字经济的 Public Private Partnership (PPP)。只有在建立有效的PPP基础上我们才可以持续的健康的的发展Web 3.0数字经济。建议香港创新及科技基金划出一部分用来打造数字经济PPP
- 建立“元宇宙香港”(MetaHK)，力争将香港打造成元宇宙的最伟大最智能城市
- 推出一个有效的人才计划吸引大批数字经济人才落地香港。注意这里我们不能只考虑所谓的“高端人才”，打造生态必须有各个层次的人才，包括工程师、码农。
- 完善监管制度，止血！