Political, Social and Ethical Issues in Web3 and the Metaverse

Nir Kshetri
University of North Carolina—Greensboro

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Digital colonialism in Web3 and the metaverse

- Western technology companies: unfair and deceptive practices to collect data needed to build Web3/metaverse
  - Mainly focused on places where people live in poverty: cheaper and easier to collect data
  - Few legal protections.
  - Ethics dumping
- Worldcoin: developing Web3's preferred identity solution.
  - Metallic orbs to scan irises and other biometric data such as faces, and bodies.
  - A voucher for $20 worth of Worldcoin tokens.
  - Not actual dollars: only theoretical money on paper.
  - The launch date for the tokens was delayed several times
- Mar. 2022: data collected from 24 countries, 14 were developing.

Economic exploitation marginalized groups

- P2E games in the developing world: Lifeline for many
  - Axie Infinity: 2.5m daily active users in Feb. 2022
  - Actual earnings: far lower than reported
- Players unable to buy NFTs: rent from token-wealthy individuals.
  - Axie Infinity's "scholarship" program
  - A scholar' gets 60% to 70% of the earnings
  - The rest goes to the manager.
- NFT owners take a large share of players' earnings
  - Practice akin to sharecropping

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Editorial

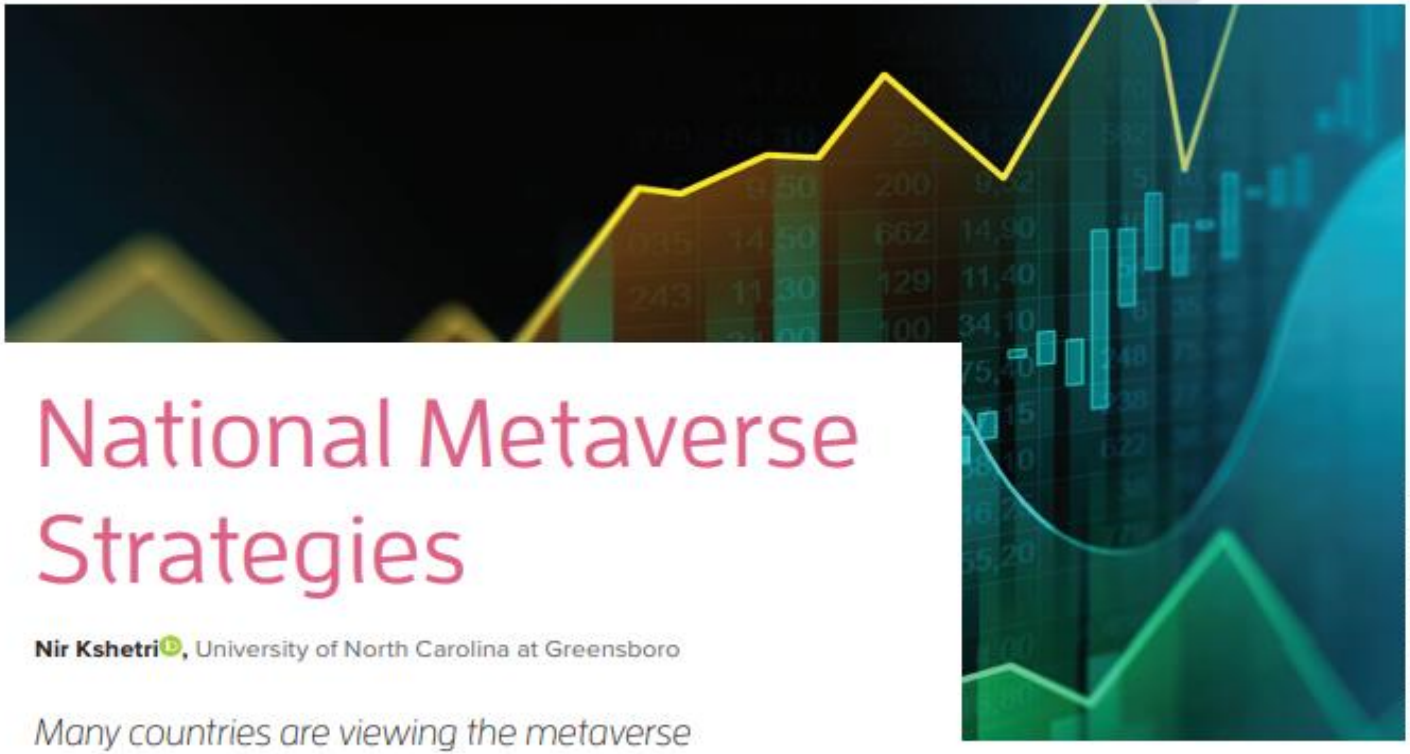
Pollution-reducing and pollution-generating effects of the metaverse

Nir Kshetri [a], Yogesh K. Dwivedi [b, c]

Pollution-generating effects of the metaverse

Mechanism	Explanation	Example
Developing and running various technological tools	Technologies and tools such as AI and NFTs used in the metaverse could generate substantial pollution.	Training one NLP model: over 284 MTs of CO_2. GPT-3 training: 552 MTs of CO_2. NVIDIA's StyleGAN3: 552 MTs of CO_2
Data storage, processing, and transmission	Data storage, processing, and transmission lead to significant carbon emissions.	High-end gamers with state-of-the-art VR: 0.91 MT of carbon each year. Cloud-gaming: large amount of energy.
E-waste from electronic products built for the metaverse	New hardware products such as high-end dedicated graphics cards, VR headsets and simulation peripherals are needed, which are subject to rapid model obsolescence.	Accelerating trend of programmed obsolescence: a continuous cycle of metaverse gadget upgrades.

COMPUTING'S ECONOMICS



National Metaverse Strategies

Nir Kshetri, University of North Carolina at Greensboro

Many countries are viewing the metaverse as essential to their economies, developing national blueprints to grow the metaverse

sector for quite some time. In 2015, the Singapore government started

National metaverse strategies of major economies

Country	Key elements of the metaverse strategy	Sample projects/ goals
China	Strategic approach : "use the virtual to enhance the real, use the virtual to strengthen the real" CICIR analyzed the metaverse's national security challenges. Registration system for metaverse users Shanghai: the metaverse as among the four "frontiers for exploration".	A CCP teaching center with immersive technology to foster patriotic values. Shanghai: US$1.5 billion investment in metaverse. Goal: to develop 10 leading companies and 100 small-sized firms and launch 100 products and services by 2025
Saudi Arabia	The metaverse: key part of Vision 2030 Also launched the National Gaming and Esports Strategy	$500b futuristic megacity NEOM: own metaverse Gaming/esports market: $6.8 billion by 2030– 39k jobs and contribute $13.3 billion to the GDP by 2030
South Korea	Launched K-metaverse 2022 2022: investment of $185m in metaverse related projects	Plan to select 70 K-metaverse companies and provide them with customized supports Seoul: five-year plan to build the city's digital twin
The UAE	Economic success using Gross Metaverse Product (GMP) Focus on tourism, education, government services, retail and real estate. Exporting culture using the metaverse Dubai: to make among the world's top 10 metaverse economies. Goal: attract more than 1k blockchain and metaverse companies and support more than 40k virtual jobs by 2030	The Ministry of Economy: headquarters in the metaverse Dubai city's digital twin in the metaverse. Sharjah: "Virtual Transaction Centre — Metaverse".

Conclusion

- Digital colonialism and economic exploitation
- A fierce debate:
  - The metaverse an environmental sustainability disaster
  - The metaverse will make the world cleaner and greener
- Running the metaverse: vast amount of computational and processing power
  - AR, VR, AI, blockchain, cloud computing and other technologies
- Some nations: the metaverse as a key driver/component of national economy
- Key issues
  - The metaverse and government control
  - The metaverse as a tool to achieve global competitiveness
  - Different relative emphases on different types of metaverses
    - Industrial, enterprise and consumer metaverses

Thank you!

Email: nbkshetr@uncg.edu