

SCIECON BLOCKCHAIN + SYMPOSIUM

Applications of Blockchain to Real-world Systems

Date

05/15/2022

9:00 P.M./A.M. BJT/ET

Inaugural Program Committee

Prof. Luyao Zhang, Chair
Zichao Chen, Co-Chair
Yufan Zhang, Co-Chair

Inaugural Address Guest Speaker

Prof. Yulin Liu

Inaugural Panelists

Prof. Gergely Horvath
Prof. Xin Tong
Prof. Tian Feng

Co-Chairs from Partner Programs

Tianyu Wu
Xinyu Tian
Zesen Zhuang
Lewis Tian
Jiasheng Zhu

Other Contributors from SciEcon Leadership

Yixuan Li



SYMPORIUM SCHEDULE

SCIECON BLOCKCHAIN + SYMPORIUM

Connect Blockchain to Real-
World Applications

09:00-09:15	Opening Remarks Prof. Luyao Zhang, Prof. Yulin Liu, Zichao Chen, Yufan Zhang
09:15-09:20	A Blockchain-based Decentralized Cloud Storage with“Keeper-and-Distributor” Systems Josh Manto
09:20-09:25	Blockchain Technology Application on Supply Chain: Advantages and Suspicions of its Applicability and Effectiveness Tingyu Cai
09:25-09:30	The Imperative Development and Challenges of Blockchain Technology in Finance Yu Cheng
09:30-09:35	Possible Improvements Made by Blockchain Technology to Social Media Yuming Gong
09:35-09:40	Supply Chain Finance Risk Identification and the Corrective Role of Blockchain Yutong Sun
Video Presentation	Analysis of the Possibilities and Difficulties of Using Blockchain Technology: Is Blockchain Technology Effective Enough to Prevent the Occurrence of Financial Fraud? Yuxi Jiang
09:45-10:00	Panel Discussions Prof. Gergely Horvath, Prof. Xin Tong, Prof. Tian Feng



Yesterday is history,
tomorrow is a mystery,
but today is a gift.
That's why it is called the present

—Master Oogway, Kung Fu Panda

Opening Remarks

Prof. Luyao Zhang, Prof. Yulin Liu, Zichao Chen, Yufan Zhang

The History



SciEcon Symposium in light of eastern and western philosophy

The renaissance of Plato's Symposium (Sympósion) and Wang Xizhi's (王羲之) Orchid Pavilion Preface (蘭亭序)

The West



会饮篇
The Symposium
[古希腊]柏拉图
Plato

source: <https://i.unistudy.top/book>

But once I caught him when he was open like Silenus' statues, and I had a glimpse of the figures he keeps hidden within: they were so godlike – so bright and beautiful, so utterly amazing – that I no longer had a choice. I just had to do whatever he told me.
— Symposium 216e–217a

At SciEcon, we host SciEcon Symposium in Light of Eastern and Western Philosophy, The Renaissance of Plato's Symposium (Sympósion) and Wang Xizhi's (王羲之) Orchid Pavilion Preface (蘭亭序).



A model of "Lanting Xu"
蘭亭序

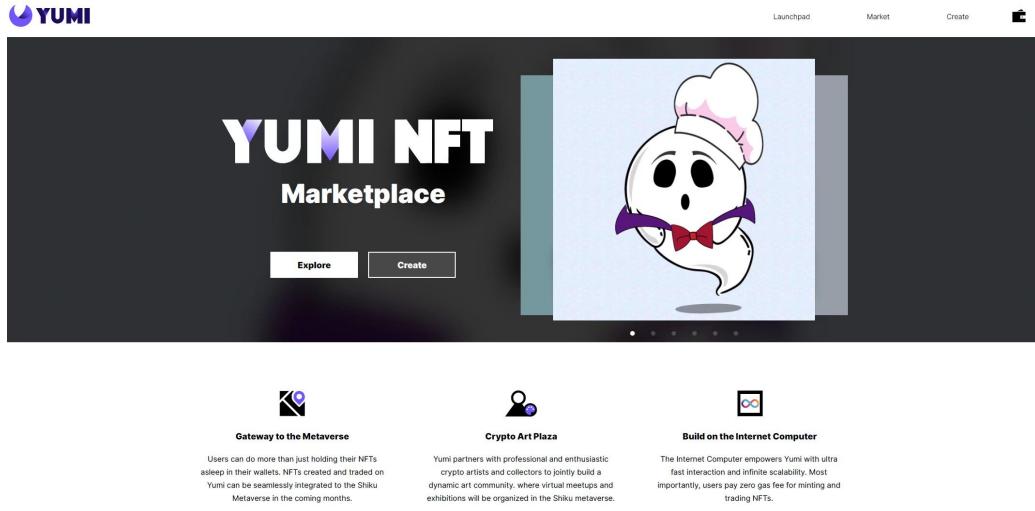
Many wise and talented ones, both young and old, all converged into one place. 羣賢畢至，少長咸集
—Wang Xizhi's (王羲之) Orchid Pavilion Preface (蘭亭序)

The East



Prof. Luyao Zhang, Chair
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The Mystery



Shiku Land

Created by all & Owned by all



Prof. Yulin Liu

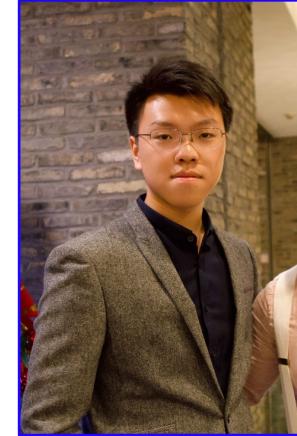
The Present

SciEcon Lab Incubator Program

SciEcon Lab Incubator Program is a philanthropy event that aims at cultivating research, innovation, and leadership among young scholars by incubating exploratory studies and symposiums on cutting-edge topics. Young scholars can join the program by proposing a research abstract in scopes and even applying for leadership positions. Research affiliates aim to publish insightful articles that identify research directions. In addition, Lab leaders shall contribute significantly to pushing the milestones, hosting the symposium, and publishing documentaries. We invite pioneers on the chosen cutting-edge topic as symposium panelists who resemble distinguished scholarship in all three aspects of research, innovation, and leadership. We expect to facilitate a conversation between young scholars and advanced panelists for future collaborations that benefit generations to come.

SciEcon Blockchain+ Lab

As the very first lab of the SciEcon lab incubator program, **SciEcon Blockchain+ lab** aims to understand and showcase the applications of blockchain to various fields ranging from cloud technology, the financial industry and anti-fraud tactics, social media, and the supply chain. The lab is proposed by the two lab leaders, Josh Manto and Yutong Sun, and supervised by the SciEcon Lab Incubator Program Committee.



Zichao Chen, Co-Chair



Yufan Zhang, Co-Chair

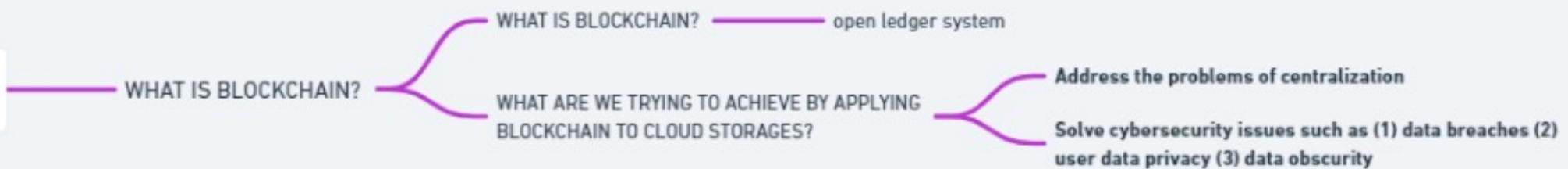


A Blockchain-based Decentralized Cloud Storage with “Keeper-and-Distributor” Systems

Josh Manto
Supervisor(s): Professor Luyao Zhang
Date: 2022/5/15

Segment 1: WHAT IS BLOCKCHAIN?

PROPOSAL



Segment 2: DATA BREACHES



LIVE UPDATES SECURITY AUG 31, 2018 1:10 PM

Hack Brief: 4-Year-Old Dropbox Hack Exposed 68 Million People's Data

Dropbox had a security "incident" in 2012, but the true scale and severity of that hack is only now coming to light.



Segment 3: DATA PRIVACY AND OBSCURITY

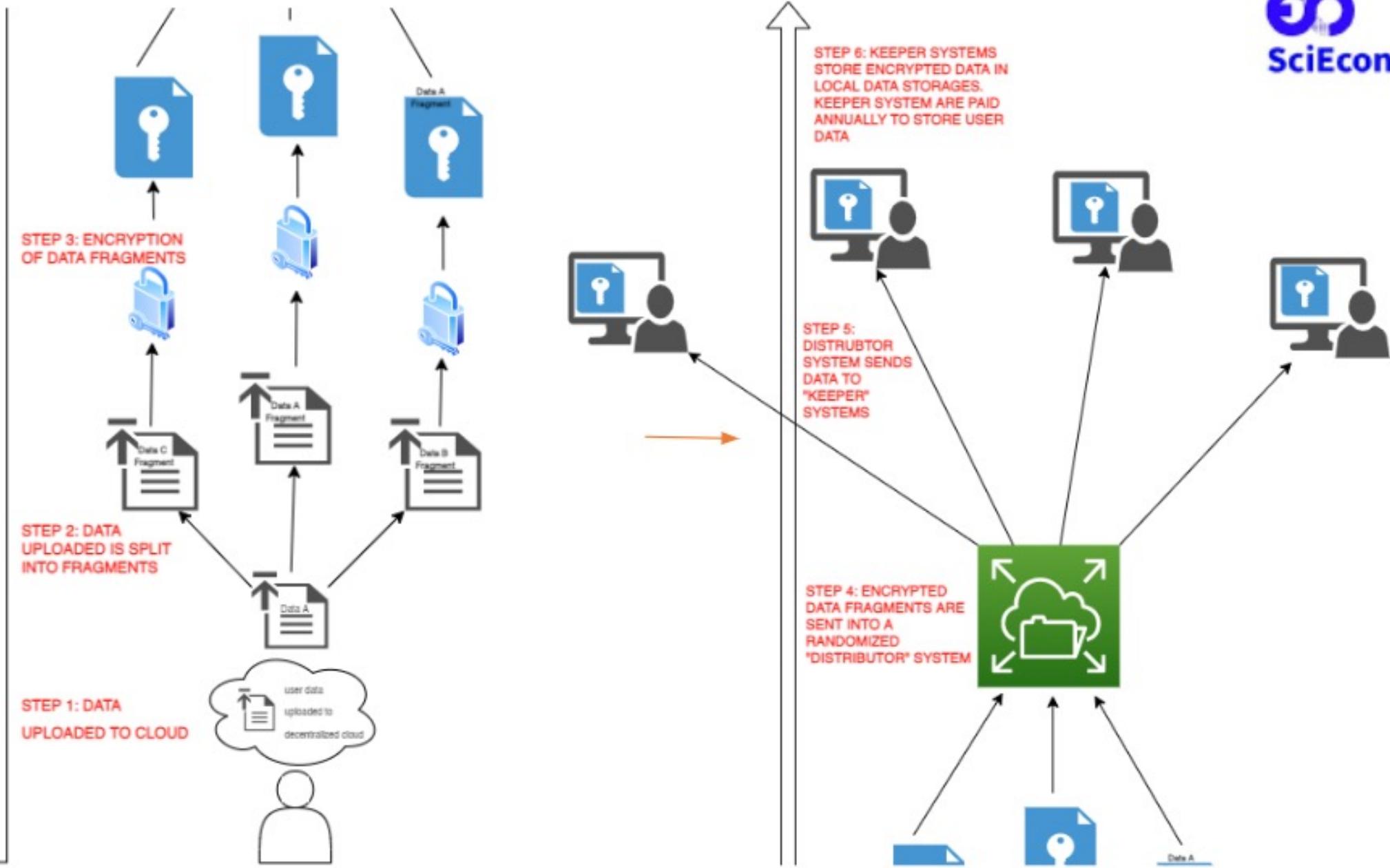
PROBLEM 2: DATA PRIVACY AND OBSCURITY

Facebook Selling User Data
Creating a data audit trail through blockchain

goal: track where data goes



Segment 4: Keeper and Distributor System



- Interesting Thoughts/Questions:



1. How blockchains can impact trust in the economy.
2. What's gonna happen when everything becomes decentralized?



Name: Josh Manto

Bio: Josh Manto is a sophomore student at DKU majoring in Data Science. He is the lab leader for SciEcon Research Lab. He has a solid foundation in Data Science, a wealth of experience in research, and has since managed two e-commerce startups to this day. His area of interest is in developing web3 and blockchain-based applications.



Affiliation:

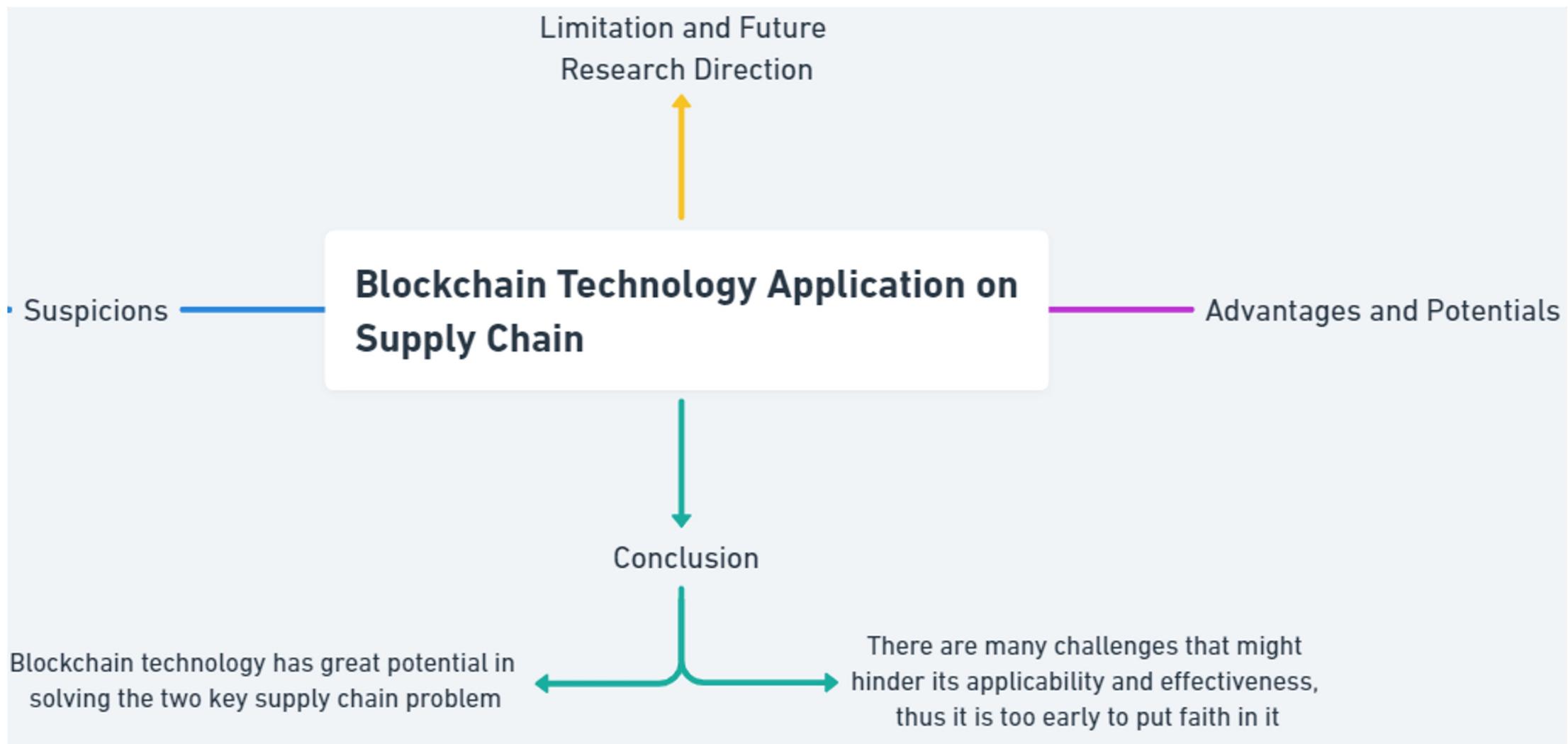
- DKU sophomore student majoring in Data Science
- SciEcon Research Team Lab Leader

LinkedIn: <https://www.linkedin.com/in/josh-manto/>

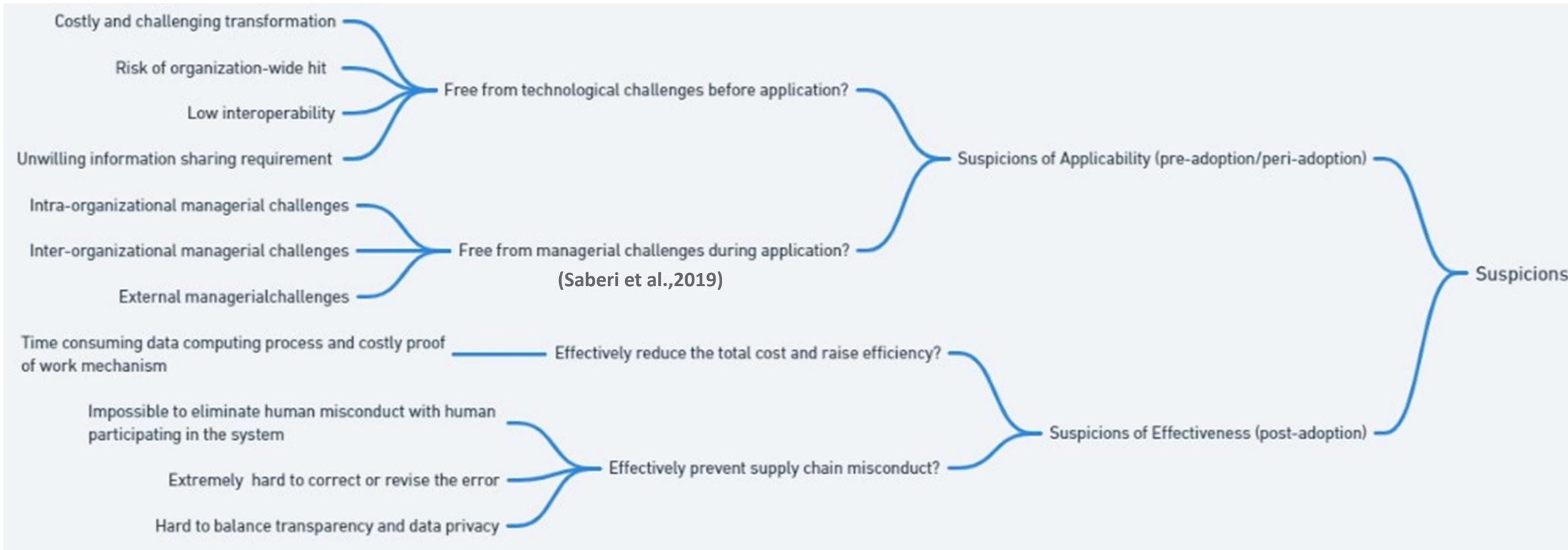
Email: jmm267@duke.edu

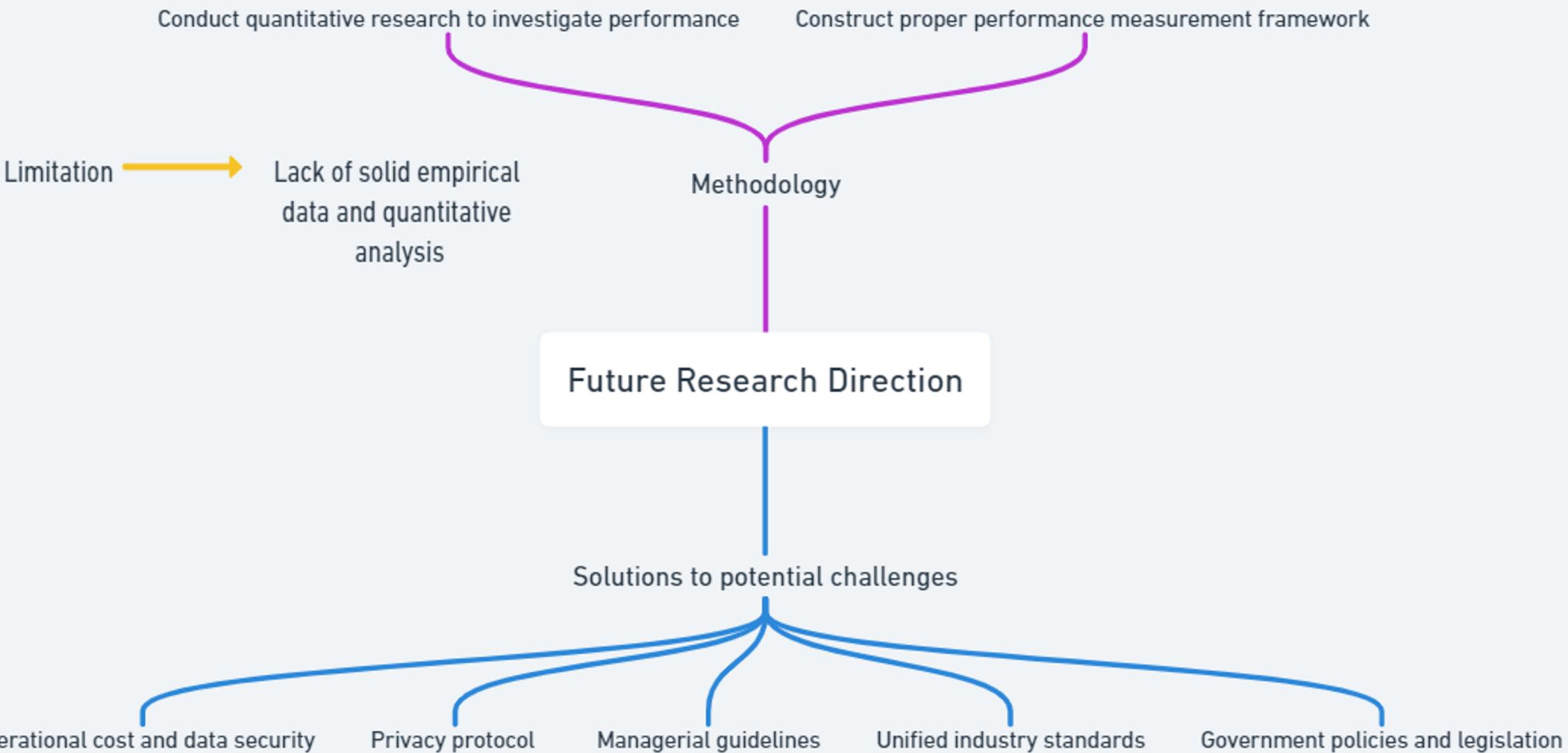
Blockchain Technology Application on Supply Chain: Advantages and Suspicions of its Applicability and Effectiveness

Tingyu Cai
Supervisor(s): Professor Luyao Zhang
Date: 2022/5/15









Name: Tingyu Cai

Email Address: tc315@duke.edu

Bio: Tingyu Cai is a sophomore majoring in Economics at Duke Kunshan University. His research interests lie in areas including macroeconomic analysis, global trade, international affairs, industrial research, business strategic management, and marketing. He is currently working as a research affiliate under Professor Luyao Zhang's Blockchain+Lab, SciEcon Lab Incubator Program.



LinkedIn: <https://www.linkedin.com/in/tingyu-cai-479a5b201/>



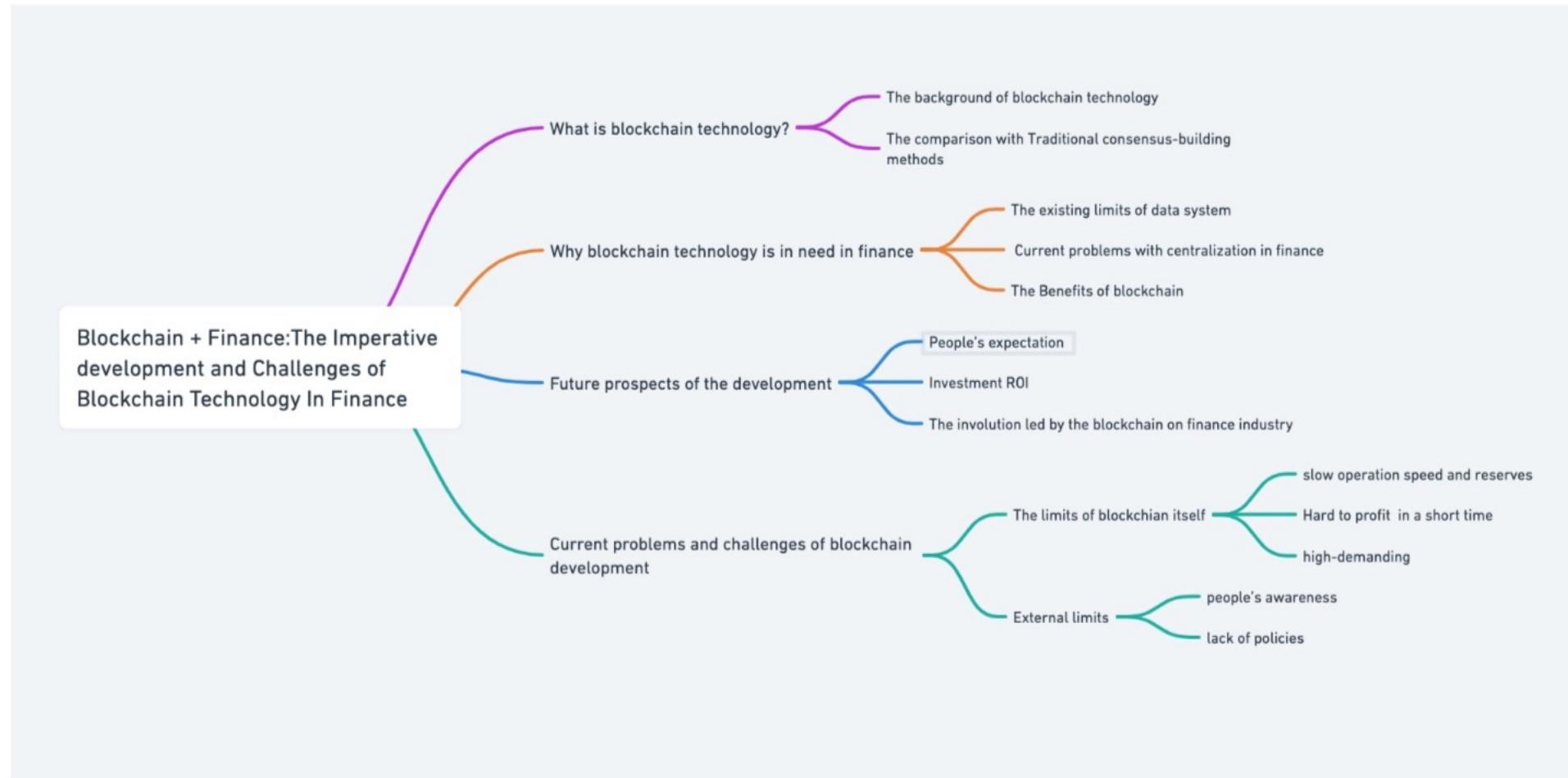
The Imperative development and Challenges of Blockchain Technology in Finance

SciEcon Blockchain + Finance

Author Name: Yu Cheng

Supervisor(s): Professor Luyao Zhang

Date: 2022/5/15



Future Study





Yu Cheng

Email address: yc479@duke.edu

Linkedin: <https://www.linkedin.com/in/gloria-cheng-53515a236>

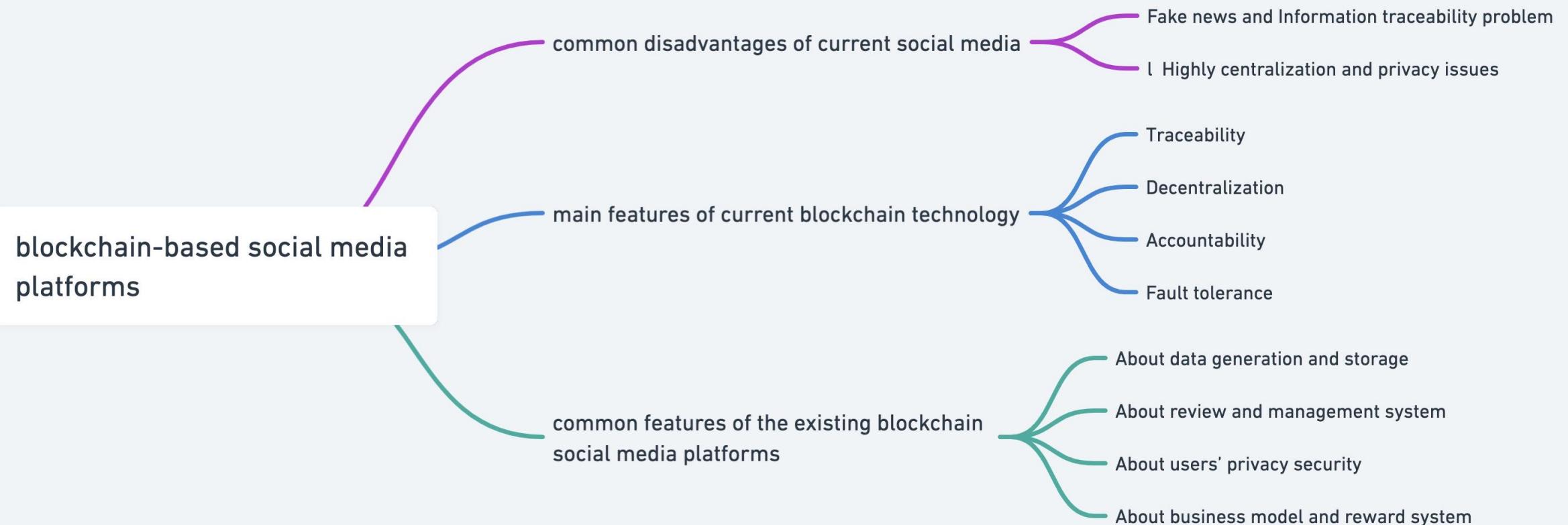
Bio: I am a UG 2024 student at Duke Kunshan University majoring in Data Science. I have basic proficiency in Python, Matlab, Java and R. With the rising development of Web 3.0 and Metaverse. I take a profound interest in Fintech and blockchain.

Possible Improvements Made by Blockchain Technology to Social Media

Author name: Yuming Gong

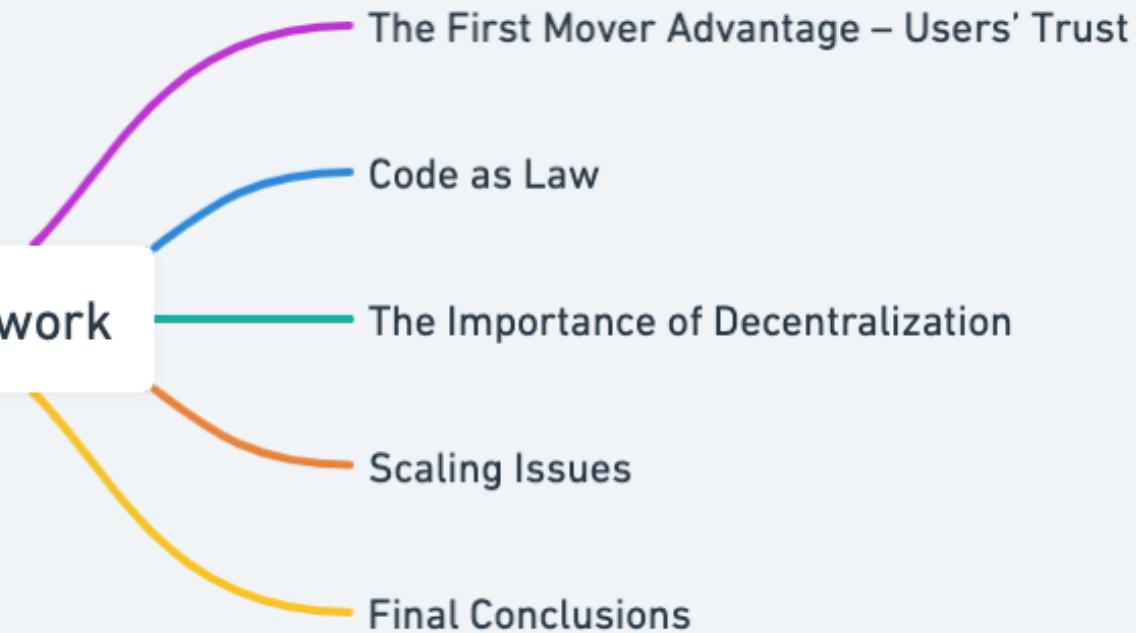
Supervisors: Prof. Luyao Zhang

Date: 5/15/2022





Case Study: Sapien Network





Name: Yuming Gong (Lisa)
Email Address: yg187@duke.edu

Bio:

Yuming Gong is a sophomore student at Duke Kunshan University (DKU). She majors in Political Economy with the track of Economics. She works as DKU ECE marketing Assistant and also serves as the head of DKU Football Association Publicity Department. As she often deals with all kinds of social media, she is concerned about the threat to public information security brought by the new blockchain social media. She wants to further explore the changes blockchain brings to social media and work on addressing some of this industry's pain points.

LinkedIn:

<https://www.linkedin.com/in/%E8%B4%A1%E9%92%B0%E8%8C%97lisa/>



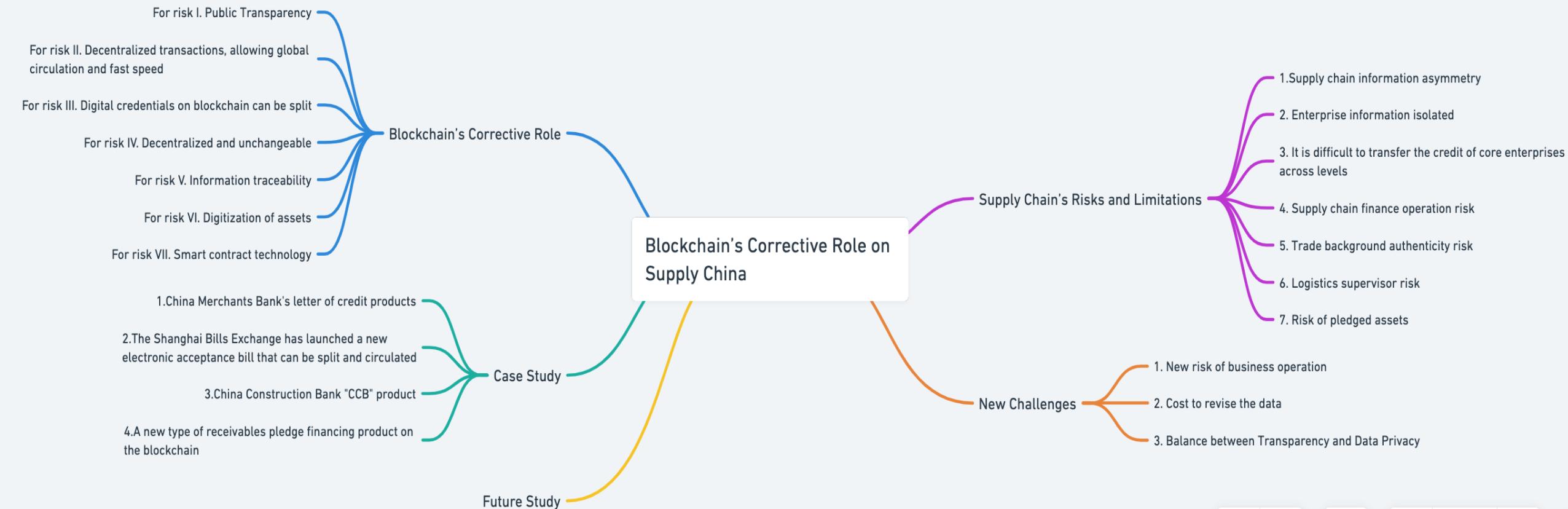


Supply Chain Finance Risk Identification and the Corrective Role of Blockchain

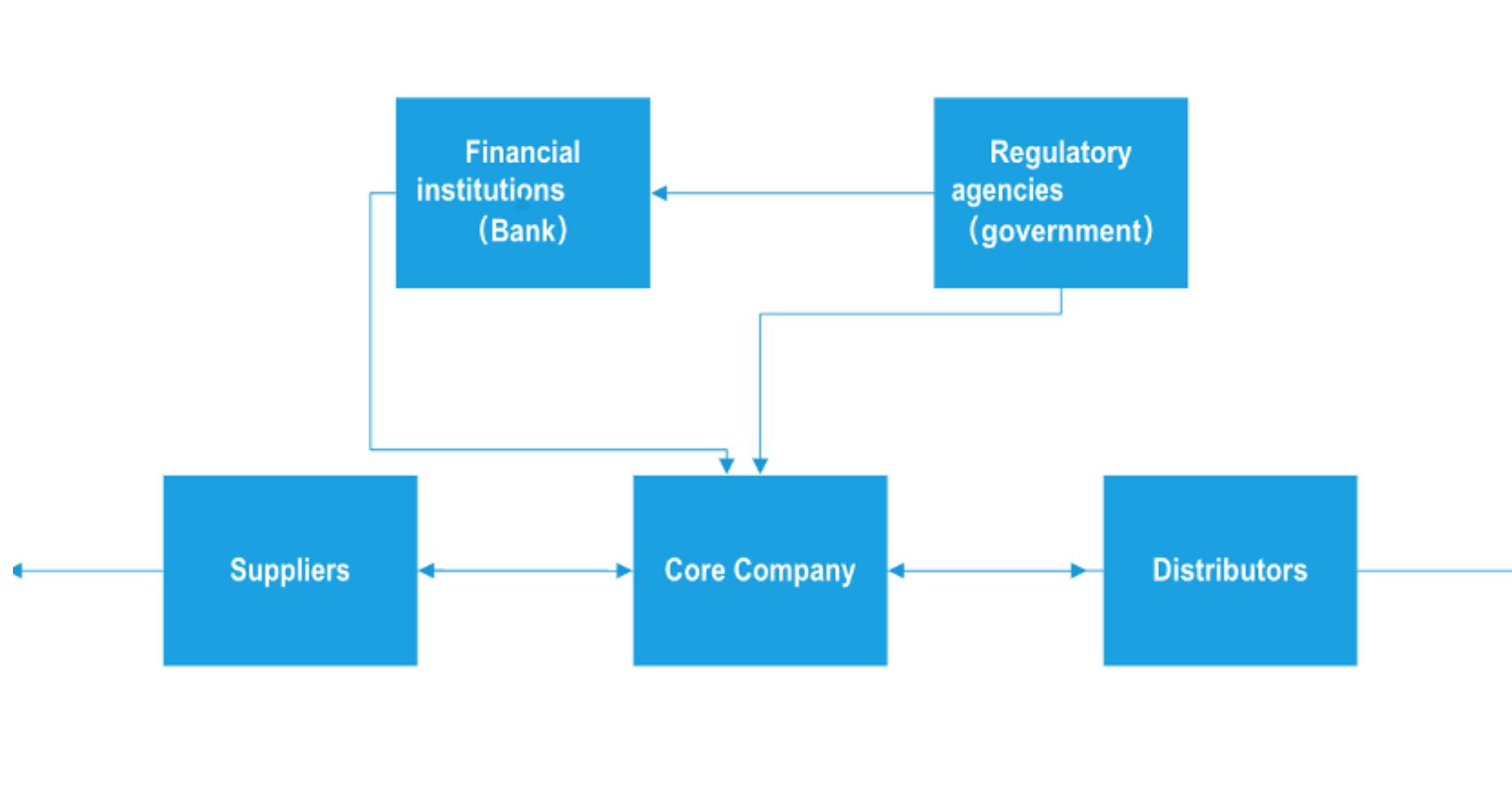
Author Name: Yutong Sun

Supervisor(s): Professor Luyao Zhang

Date: 2022/5/15



Supply Chain Structure

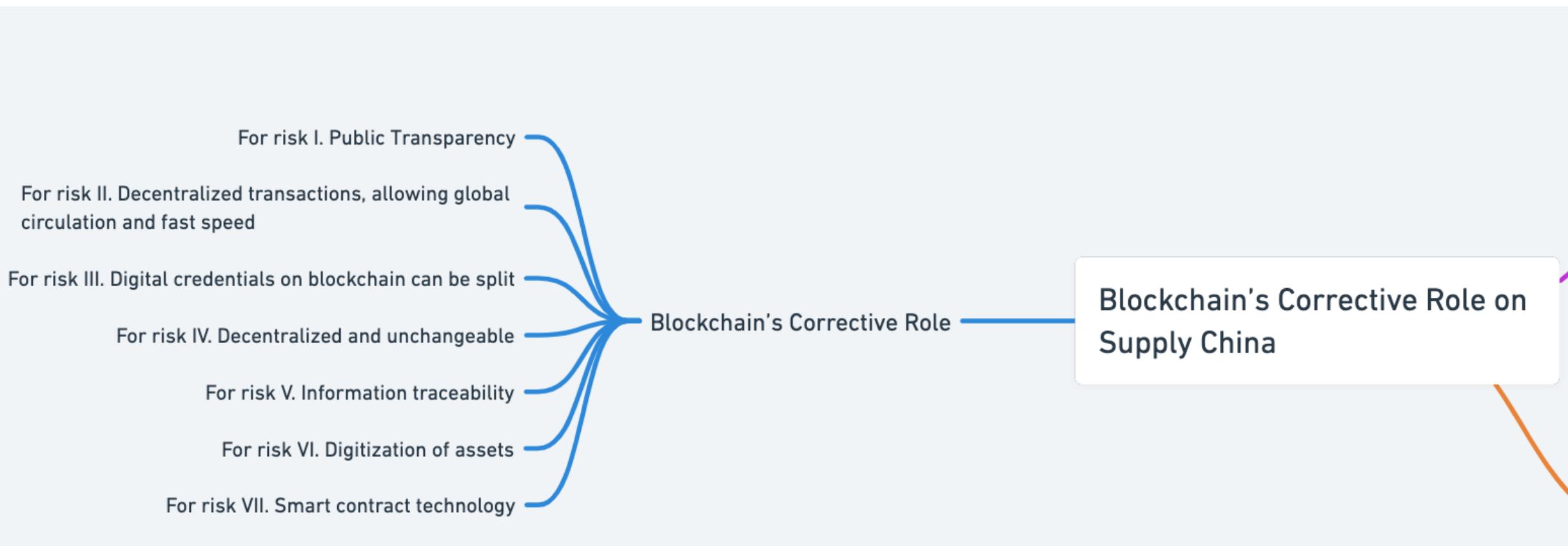


Supply Chain Risks

Blockchain's Corrective Role on Supply Chain



Block Chain Characteristics



Products of the application of the Blockchain on Supply chain

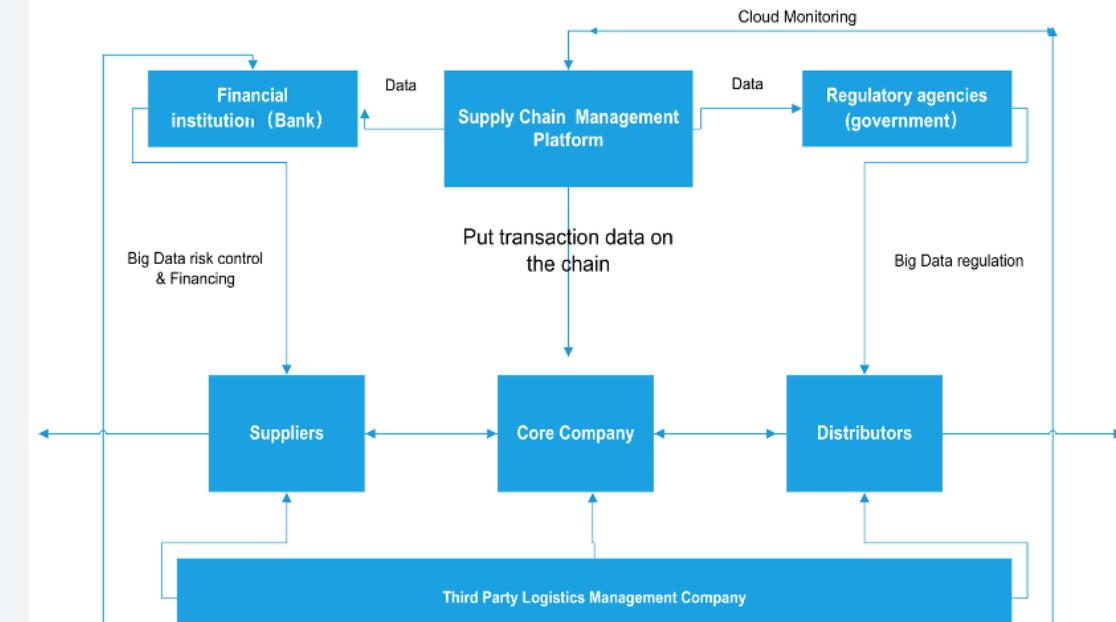
1.China Merchants Bank's letter of credit products

2.The Shanghai Bills Exchange has launched a new electronic acceptance bill that can be split and circulated

3.China Construction Bank "CCB" product

4.A new type of receivables pledge financing product on the blockchain

Case Study



New Challenges of the Supply chain after the application of the Blockchain

Blockchain's Corrective Role on
Supply Chain

New Challenges

- 1. New risk of business operation
- 2. Cost to revise the data
- 3. Balance between Transparency and Data Privacy

Future Study





Bio:

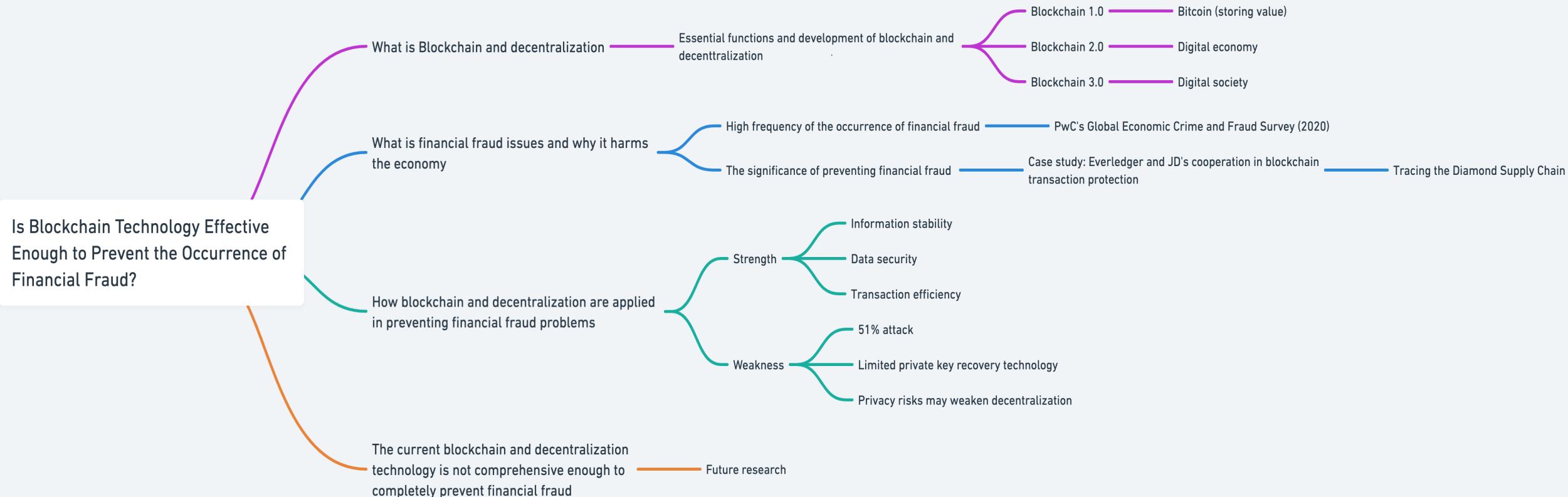
I am Sun Yutong, a junior student at Duke Kunshan University majoring in Applied Mathematics and Computational Science. My research interest is in financial technology and financial mathematics. Previously, I have done some research on commercial leverage ratios using machine learning models, and Blockchain, as one of the hottest research topics in FinTech, is also one of my research directions. I am interested in doing research on this topic from a mathematical point of view, such as applying the mean field game model to analyze the centralization phenomenon of mining on blockchain.



Analysis of the Possibilities and Difficulties of Using Blockchain Technology: Is Blockchain Technology Effective Enough to Prevent the Occurrence of Financial Fraud?

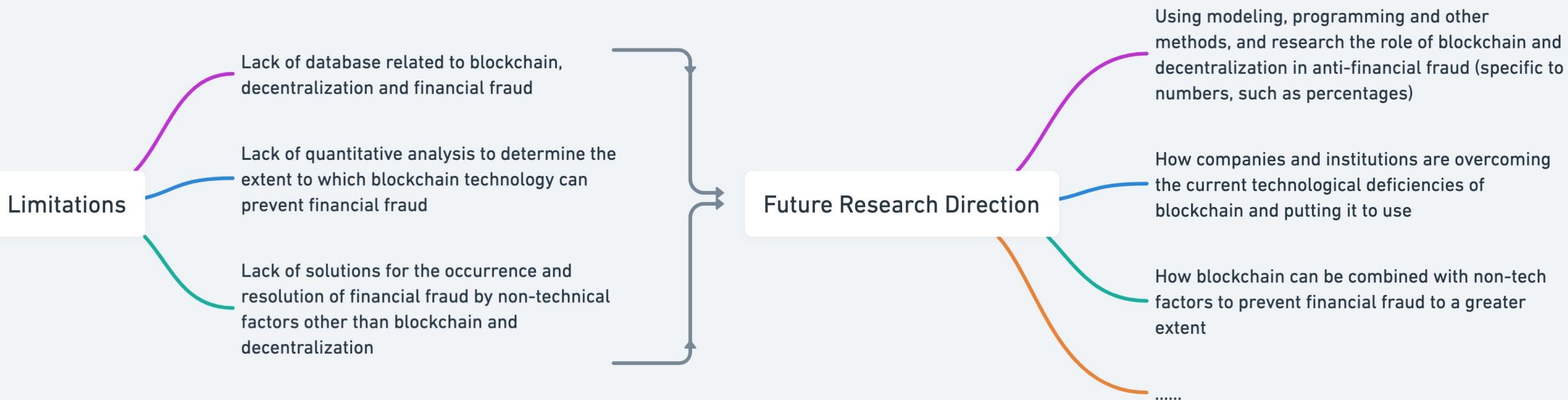
Yuxi Jiang
Supervisor(s): Professor Luyao Zhang
Date: 2022/5/19

Article Content



**EVERLEDGER WITH
JD.COM AND GIA**

Future Research Direction





Name: Yuxi Jiang

Email Address: yj173@duke.edu

Bio: Yuxi is a sophomore student majoring in Political Economy with the ECON track at Duke Kunshan University (DKU). She is passionate about interdisciplinary studies of economics, especially those related to Finance, Governance, and Behavioral Science. She is now a newcomer in Blockchain research and wants to analyze the above areas of interest in-depth.

LinkedIn: www.linkedin.com/in/trudyjiang

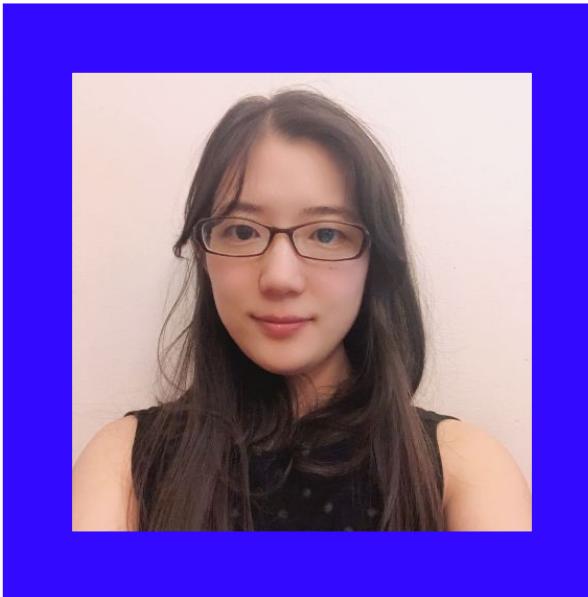
Panel Discussions

Prof. Gergely Horvath, Prof. Xin Tong, Prof. Tian Feng

Panel Discussions



Prof. Gergely Horvath



Prof. Xin Tong



Prof. Tian Feng



SciEcon E-Boards Comments

SciEcon E-Boards Comments

**Zichao Chen**

Interim Chair of SciEcon Research Accelerator, SciEcon E-Board

[\[LinkedIn\]](#)

I am honored to witness the success of this SciEcon Blockchain+ Symposium as co-chair. In addition, I would also like to congratulate our five SciEcon lab members who finally completed their speech successfully. You are the rising talent stars of SciEcon. At this seminar, our lab members showed and shared their exploration of future application scenarios of blockchain technology. As they said, blockchain technology will bring us a new and beautiful world. In order to usher in this beautiful future world, as academic researchers, we still need to continue to learn new knowledge, study steadily, and strive to integrate our major's knowledge into blockchain technology, just as Professor Feng Tian said. We hope that these rising SciEcon academic stars can further complete their research and publish their results in professional conferences and journals in the near future!

NFT MARKET CAPITALIZATION[\[Link 1\]](#)[\[Link 2\]](#)

SciEcon E-Boards Comments

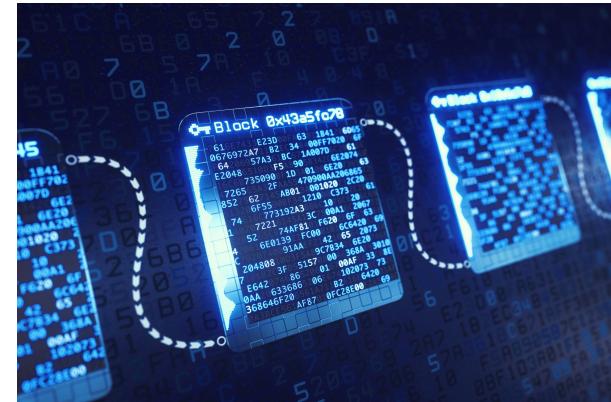


Ray Zhu

Interim Chair of SciEcon AMA, SciEcon E-Board

[\[LinkedIn\]](#)

Congratulations, everyone, on completing your projects and sharing sessions in the SciEcon Blockchain+ Symposium —Such a feast! You are the future stars at SciEcon, and you will be leading a revolution soon! Blockchain has shown its huge potential for a bright future with many interesting features specific to its kind of technology and applications. In combination with whatever disciplines or industry fields, blockchain technology can all generate promising but different innovations and outputs. And you, coming from different backgrounds and training, have already applied your distinctive perspective to understand and recreate the ideas and innovations centering around blockchain. I believe you will be or may have already benefited a lot from the research, interviews, and other relevant projects. When you keep doing so, you will find more, and be more strongly attracted by its charm and unlimited potential.



[Link](#)



[Link](#)

SciEcon E-Boards Comments

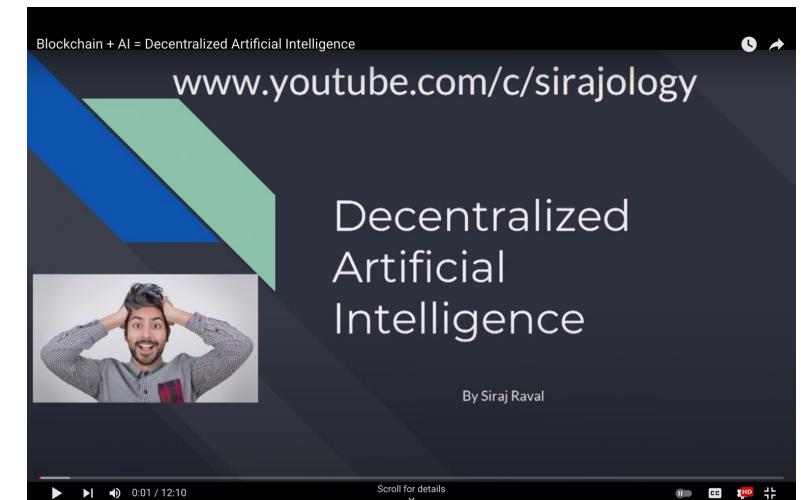


The talks on symposium are very inspiring. The speakers emphasized how blockchain technologies are changing the world from centralization to decentralization and empowering the industry. The talks remind me of my original intention for doing research about blockchain: using high technologies to support the society and create a new world with efficiency and safety.

I'm currently doing research about cooperative AI technologies and I would like to share [this](#) interesting video to you all about the idea that blockchain is the decentralized AI. This may be helpful as people are integrating high technologies (blockchain technologies and AI technologies) to support human beings.

Xinyu Tian

Interim Chair of Communication,
SciEcon E-Board
[\[LinkedIn\]](#)



SciEcon E-Boards Comments

**Tianyu Wu**

Interim Chair of Human Resources,
SciEcon E-Board

[[LinkedIn](#)]

It is indeed a wonderful symposium that demonstrates how blockchain technology can be deployed in various areas, and from your preliminary research, I believe that you are now stepping into the right track and expected to deliver a desirable outcome in the near future. Some of your presentation reminds me of my previous research on decentralized social media, with a special interest in how token economies can be designed and utilized to motivate users to actively participate in the platform.

At this stage, I would like to share [this](#) great video for you to better understand current development of decentralized social media and identify some potential research questions or applications.



SciEcon E-Boards Comments



Yixuan Li

Interim Chair of Creativity, SciEcon E-Board

[\[LinkedIn\]](#)

It's my great pleasure to be a part of this fantastic symposium hosted by SciEcon Blockchain+ Lab! And huge congrats to all the speakers, your presentations sparked so much wisdom and creativity that enlightened all of us. You are not only SciEcon's rising stars, but you will also become pioneers in your own specialized field. As a few of my colleagues have mentioned, blockchain is like an empty vessel waiting for talented people to fill it with new content. It is a relatively unexplored area that requires people like you to expand on the possibilities of this incredibly innovative technology. And, of course, you are already doing it. I felt the same way you did when you started this journey, and I'm looking forward to the amazing advancement you're about to create.



[Link](#)



[Link](#)

SciEcon E-Boards Comments



Ziliang (Lewis) Tian

Interim Chair of Sustainability and Social Impact, SciEcon E-Board

[\[LinkedIn\]](#)

This symposium was very informative and engaging! It shows the immense potential for blockchain technology to be applied in various scenarios. I was particularly interested in blockchain+supply chain, which is perhaps the earliest application of blockchain. Blockchain can be used for tracking, increasing supply chain transparency, and certifying, etc.



[Link 1](#)



Zesen Zhuang

Interim Chair of Technology
Development, SciEcon E-Board

[\[LinkedIn\]](#)

It was a great pleasure to participate in this symposium and I was inspired by the future applications of blockchain in interdisciplinary aspects that are very promising. Many difficult disciplinary problems can be solved from novel perspectives with the help of blockchain, cybersecurity is a good example. We hope to see more interdisciplinary applications of blockchain in the future.



[Link](#)