Future-Ready Society Conference Series 2023: Panel Discussion on Web3 and Community Development

By Ruby Thiagarajan

The Future-Ready Society Conference Series

The Future-Ready Society Conference Series is a partnership between the Institute of Policy Studies (IPS), Lee Kuan Yew Centre for Innovative Cities and Tote Board. As part of this series, panel discussions serve to introduce novel ideas to spark dialogue across the people, private and public sectors. These discussions are a prelude to the annual flagship Future-Ready Society conference, which aims to explore future trends, emerging issues and untapped opportunities along with insightful responses and solutions to address pressing societal challenges.

On 29 August 2023, the partnership held a panel discussion titled “Web3 and Community Development", moderated by Dr Justin Lee, Senior Research Fellow and Head of Policy Lab at IPS. Two speakers familiar with Web3 technology discussed the implications of this digital space for non-profits. A local charity leader with experience using the Metaverse for community work weighed in on the significance of these ideas for the non-profit sector in Singapore.

Use Cases of Web3 for Community Building and Social Change

Mr Hum Qing Ze, Head of Product (Blockchain) at Tribe opened the panel by introducing Web3 and blockchain technologies. He clarified that cryptocurrencies are just one of the use cases for the technology and they do not represent all of Web3’s potential. The key idea behind Web3 is allowing users to create immutable agreements that will be kept autonomously — contracts and systems on a blockchain platform are codified within a network of computers independent of human users and administrators. Relating this to the charity sector, he noted that Singapore is known worldwide for its robust institutions. Blockchain technology could provide a way to scale these institutions on a global level by removing heavy overheads and turning processes into computer code. In his view, the main hurdle for Singapore institutions in making a larger global impact is the current inability to export their work.

Mr Hum highlighted several examples of Web3 projects that could be relevant to non-profit institutions. He gave the example of Aave, a decentralised protocol that allows users to lend and borrow both digital and real-world assets. It currently manages US$7 billion in assets. The protocol allows regular users to deposit any amount of their own assets into a lending protocol.

The smart contracts facilitate other users borrowing these assets and enforce the interest rate that the funds were borrowed at. This allows any user to create liquidity pools for others to participate in. Non-profits could apply this technology to community lending pools without the large overheads of creating an entirely new institution. The source code for Aave is available for public use and can therefore be replicated for other projects. This would also remove the need to hire consultants and lawyers to build new community lending projects.

Mr Hum also raised the example of Uniswap, a platform that allows users to swap and buy cryptocurrencies and other assets. While acknowledging that criticism about the over-financialisation of interactions in Web3 are valid, Mr Hum countered that this would allow non-profits to interact in new and productive ways. For example, charities could give out "tokens" for non-monetary support (like time) that could be exchanged for other assets. Some non-profits already have systems like this that are reliant on manually updated platforms like spreadsheets. This requires a large manpower commitment that could be greatly reduced by adopting a Web3 solution instead.

Introducing Decentralised Autonomous Organisations (DAOs), Mr Hum pointed to the Nouns DAO on the Ethereum blockchain. Nouns are non-fungible tokens that give their owners the right to vote on different proposals that are put to the DAO. The money generated from Nouns auctions is collected in a treasury pool that is used to fund the group's proposals. A group of people help to allocate a treasury through voting on different proposals that are put to the Decentralised Autonomous Organisation (DAO). While money is required to purchase a Noun, money and voting power are slightly decoupled as users have the same vote regardless of the price of their Nouns. In response, Dr Lee highlighted that the DAO system resembles a co-budgeting platform and may be used for such projects.

Finally, Mr Hum introduced clr.fund as a possible model for charitable donations. Clr.fund is a protocol for allocating funds to public goods. Donors contribute to a matching pool. Funds are then allocated according to community preferences. In traditional non-profit grants, Mr Hum said, committees are usually set up to administer funds. Committee members may be experienced in public service or financial administration but may lack sector-specific knowledge that could help assess funding proposals. Clr.fund uses a formula called quadratic funding that allocates more funds to projects that receive more individual support. It flips the script on conventional funding processes where well-known or larger organisations often receive the majority of funding. This system also allows funding to go to more unconventional projects that may not appeal to traditional grant-giving committees.

Combining Localism and Decentralisation

Mr Mark Pascall, Founder of The Wellbeing Protocol, shared his organisation's journey towards creating a community well-being DAO. Web3 allows for the creation of a new generation of software that can be more open and inclusive, he noted. Mr Pascall contrasted this to Web2, which is a centralised system that has power controlled by a small group of tech entrepreneurs and executives. Web3 provides hope that we can push back against this and move towards a more decentralised world, he added.

In 2020, The Wellbeing Project ran a pilot for Cannon Coins, a digital community currency. Residents of the Cannons Creek community were able to trade with one another, purchase items and put their Cannon Coins towards community initiatives. Mr Pascall shared some key

takeaways from this trial. The first was that small community-level initiatives and project-starters found it very difficult to get grants. The second was the observation that project-starters were reinventing the wheel every time a similar well-being project was piloted in a different community. He also noticed that entering small low-income communities came with some difficulties due to the existing level of distrust towards traditional service providers. Mr Pascall realised that a DAO might be a good solution to this problem because they would be controlled by the community for the community. One of the most interesting things about Web3 is the emerging design patterns: new forms of economic incentives, voting mechanisms, governance.

Mr Pascall agreed with Mr Hum's belief that Web3 would allow for smaller overheads and less manpower required to manage projects. Echoing Mr Hum, he also brought up how traditional funding systems involve government- or philanthropist-controlled grants that are usually run by a hierarchy of administrators and decision makers. This can end up disempowering local communities from deciding what would work for them. Community controlled funds instead put the decision-making power directly into the hands of the community members. In order for such funds to succeed, several measures need to be implemented. These include a constitution that voters need to ratify, software with a transparent governance mechanism, a risk mitigation system to allay funders' fears, and a form of outcome measurement.

The Wellbeing Protocol is currently trialling a participatory grant making app based on DAOs. Their DAO focuses on place-based communities whose individuals can physically congregate to discuss decisions. The app is meant to facilitate the process. All community members can propose ideas, vote on proposals, and contribute funds to start projects. They use a quadratic voting system, similar to clr.fund's quadratic funding, which works by weighting each vote with a cost. For example, a voter with 100 credits could choose to allocate more credits to a specific proposal. Costs go up exponentially, which is intended to help people consider the relative importance of each vote. Within the community, there is a subset of people called stewards. Stewards work with individuals to create draft proposals from the most popular ideas. The second round of voting is for fleshed-out proposals. This is where funding becomes part of the equation. Cheaper proposals require fewer votes, more expensive proposals require more votes to be approved. Another mechanism called conviction voting has a time-dampening effect that prioritises the opinions of community members with consistent preferences. Combining both quadratic and conviction principles together helps to address the "tyranny of the majority" where majority interests are placed above minority ones.

In Mr Pascall's view, localism is about replicating projects many times instead of scaling a single project up in size. These place-based DAOs will be able to support local well-being with democratic principles. They are a radically new way to fund community initiatives by reducing the friction required for funders to make impact. These initiatives can also support other wealth and value creation opportunities that are less reliant on single funders. The community could potentially generate its own wealth or pool money from a network of smaller funders for projects.

Experiences from Singapore's Non-profit Space

Jerome Yuen, Chief Executive Officer of Cycling Without Age, responded to both presentations from his perspective as a member of Singapore's social sector. In his

experience, Web3 is not currently talked about much in the charity space. Cycling Without Age is an IPC that has a store on the Metaverse. This came about as they were looking for a project in the physical space and decided to create a prototype on the Metaverse that they could share with funders. Individuals can now donate on Metaverse, learn more about the charity, and experience Virtual Reality bicycle rides that are part of the charity's programmes. Web3 addresses the problem of resources being concentrated in a few individuals' hands. Smaller charities with leaner fundraising teams may not have the bandwidth, network, or manpower to access traditional fundraising avenues. In that way, smaller charities could benefit from access to DAOs and collective funds. In Mr Yuen's view, localisation would benefit Singapore's charity sector, especially the organisations that do not already have access to traditional funds like government grants. Web3 could help fund good but fringe projects that may not live up to established traditional KPIs and other forms of measurement.

Dr Lee picked up on a point Mr Pascall made on Web3's emerging patterns of new forms of economic incentives, voting mechanisms, and governance. He said that emphasis should be placed on these patterns rather than the technology itself. In his view, the decentralisation of decision-making holds the most promise for non-profit organisations.

Highlights from the Question-and-Answer Segment

Question: What advice do you have for non-profits that are not very comfortable with tech? Should efficiency be prioritised over comfort?

Mr Pascall said there was no issue with using off-the-shelf software as long as it works to support the project at hand. Web3 hopes to provide a digital infrastructure that can be used by anybody that is not controlled by a specific group. It is worth adopting for projects that would benefit from this decentralised framework.

Question: What is an easy use case for non-profits to start with?

Mr Hum suggested starting with identifying one's organisation on the blockchain. This includes setting up an address and name service on Ethereum and participating in existing funding rounds and projects. Many projects are already up and running and need users. He said that there are probably already Web3 experiments trying to address every kind of pain point for organisations. Non-profits should consider working with these experiments instead of building their own systems. In this way, they can help refine these Web3 products and simultaneously increase the understanding of the technology within their own organisations.

Mr Yuen shared his experience of hosting Cycling Without Age's VR rides on the Metaverse. These programmes can be accessed from any nursing home in Singapore as long they have the required device. This makes the program scalable with minimal specialised manpower. In his view, organisations need to take an interest in the space and educate themselves on the technology. This will grant them a deeper understanding of how it can be adapted to suit their work.

Question: What are the things to note in order to implement community-controlled funds successfully in the local community?

Mr Pascall suggested some key elements: the software and a funder that is open to trying something different and new. These projects can be framed for funders in a low-risk way. For

example, funders can choose to release funds in tranches rather than all at once. The community needs to have a clear purpose. Identifying community stewards can also be helpful. In the Wellbeing Protocol's pilot, stewards are paid so that they can spend more time working on the project. Once these elements are in place, projects can run and grow organically. When funders see results, they are more comfortable putting in larger amounts. The system is made to make the process more transparent and fairer and to give funders a sense of the impact made.

Question: Should we use this for a social stock exchange?

Mr Pascall suggested first asking if one needed Web3. It is only useful when one is trying to traverse trust boundaries like building a global currency, he noted. There are plenty of use cases for Web2 technologies still so it is important research and find what works best for a specific project.

Mr Hum added that when it comes to Web3, we often talk about building institutions — but its best strength is in building primitives (component parts). It is great at building elements that can be mixed and matched. Instead of building a centralised social stock exchange, different elements can be aggregated. For use cases, it may be useful to break them down into small primitives and bring these pieces together.

Question: Are there existing use cases of DAOs in Singapore?

Mr Hum said he was not familiar with any DAOs in Singapore but there are a lot of DAO people in Singapore. As DAOs are not limited by national borders, they may not adhere to country-specific framing. Web3 technology is already being adopted in Singapore. GovTech used Ethereum to create a certificate attestation programme called OpenCerts and the Monetary Authority of Singapore has been looking at piloting inter-currency transactions using a platform like Uniswap.

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