ASSIGNMENT #2

CSBC1020 – Blockchain Applications for Industry

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Q: One criticism for Joe Monegro's cryptoeconomic cycle model is that the role of developers is missing. How would you re-draw this model diagram if it includes the role of developers? Please describe how the developers may interact with miners, users and investors.

A: Joe Monegro's Cryptoeconomic cycle identifies the three-sided relation between Users, Investors and Miners. In this scenario, Miners are the supply side, Users are the demand side and the Investors are capital side. They exchange value using tokens (which is the networks own scarce currency) to uphold the network integrity and functionality. All the actors in this cycle have specified interactions with each other.

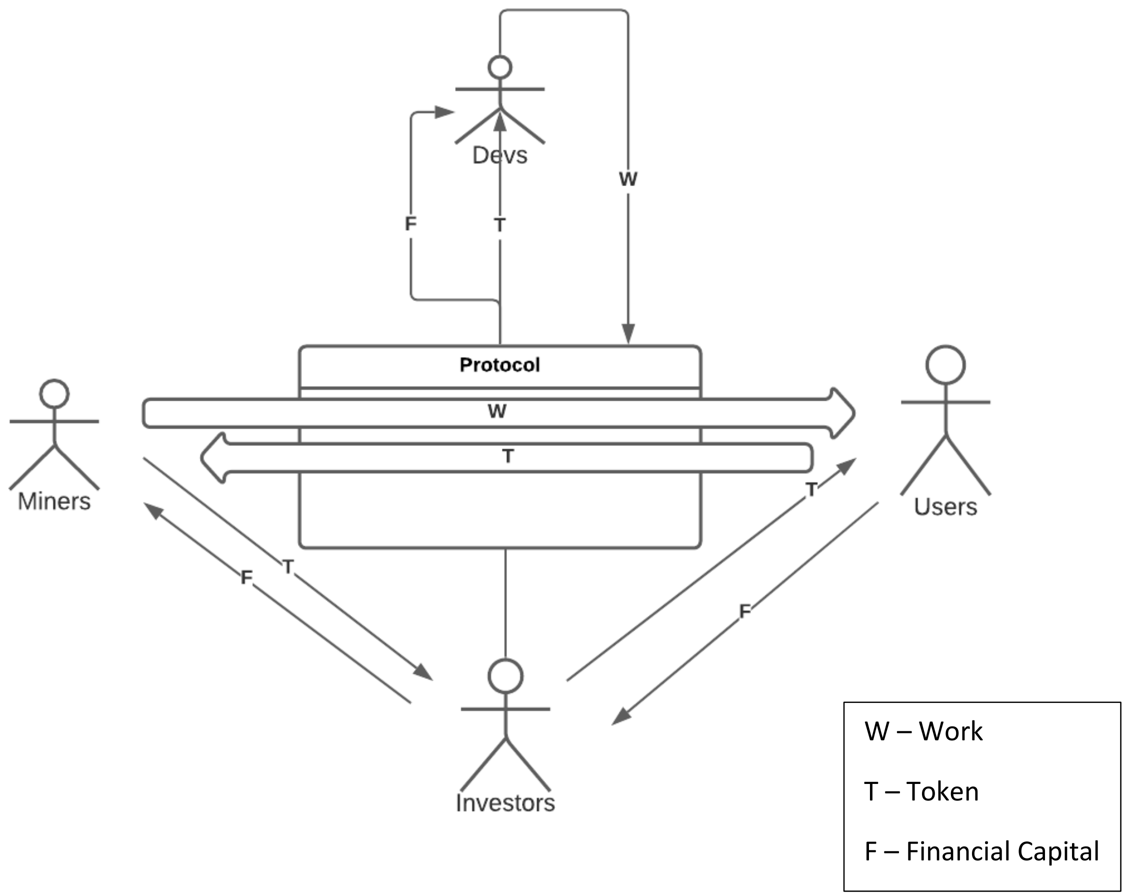
In Joe Monegro's model, the role of developers is not defined. In a blockchain network, a developer's duty includes enhancing the efficiency and functionality of the consensus protocol across all sectors. Developers contribute to important client side projects; acquiring long-term reputation value. Moreover, they have economic incentives as well from the potential price appreciation of tokens they hold. The developers are directly and economically incentivized this way which also helps to attract more users to the network and increase the demand for tokens. These tokens, along with the psychological incentives (reputational and ideological motives), can be used to coordinate the incentives of developers with other participants of the network i.e. users, investors and miners.

Developer-Miner: Devs and miners have one thing in common, they're both working behind the scenes. Miners keep the blockchain running while the developers are tasked with maintaining the efficiency of the consensus protocol. Miners receive block rewards upon completion of a transaction sanctioned by the user. The block rewards are generated by the protocol the developers manage.

Developer-Investor*:* Other than receiving financial capital from investors as salary, developers can also possibly receive tokens that economically incentivize them to uphold the consensus protocol.

Developer-User*:* People who use the blockchain network for some functionality are directly related to the protocol that is created and maintained by the developers. Developers also work to maintain a software client, improve efficiency of the whole process and generally make life easier for the user side. Without the developers' panel, the system and the consensus protocol would be fragile and unscalable.

Below is a rough addition of developers to the cryptoeconomic cycle.



NB – confused about the developer-user interaction (if any)

References:

[1] Course Module 2

[2] J. Monegro, “The cryptoeconomic circle,” *Placeholder*, 27-Apr-2021. [Online]. Available: https://www.placeholder.vc/blog/2019/1/5/the-cryptoeconomic-circle. [Accessed: 10-Nov-2021].

[3] R. Seira, “Blockchain Protocol developers are not fiduciaries,” *Medium*, 28-Nov-2018. [Online]. Available: https://blog.goodaudience.com/blockchain-protocol-developers-are-not-fiduciaries-49bf436a20ca. [Accessed: 10-Nov-2021].

[4] “Miners, developers, and users: The checks and balances of Bitcoin,” *SFOX*, 23-Aug-2018. [Online]. Available: https://www.sfox.com/blog/miners-developers-and-users-the-checks-and-balances-of-bitcoin/. [Accessed: 10-Nov-2021].

[5] J. Frankenfield, “What is a bitcoin block reward?,” *Investopedia*, 26-Jul-2021. [Online]. Available: https://www.investopedia.com/terms/b/block-reward.asp. [Accessed: 10-Nov-2021].

[6] Lucid app to create diagram