



Polkadot

Lesson 19

Every week, we find news of new cryptocurrencies or digital products. Polkadot (DOT), for example, has been gaining a lot of traction in the blockchain ecosystem. This altcoin aims to solve a critical challenge in the blockchain industry: interoperability.

In that way, Polkadot is similar to Cosmos. Both altcoins aim to enable different blockchains to communicate and share information, effectively creating a network of interoperable blockchains. This interoperability is crucial for the future scalability of the blockchain ecosystem, allowing for more complex applications and services that can operate across multiple blockchain platforms.

The two coins take a different approach.

Polkadot focuses on a “shared security model,” where different blockchains (parachains) connect to a common relay chain. This setup allows parachains to benefit from the security provided by the relay chain, while still maintaining their unique functionalities and governance models.

Polkadot's architecture is designed to facilitate not only the transfer of tokens across blockchains but also more complex interactions and data exchanges. It emphasizes the idea of building a web where independent blockchains can operate in concert while securing themselves through pooled security resources.

Cosmos, on the other hand, utilizes a hub-and-spoke model, where independent blockchains (zones) connect to a central blockchain (the Cosmos Hub) via the Inter-Blockchain Communication (IBC) protocol. Each blockchain in the Cosmos network maintains its sovereignty, meaning it operates with its consensus mechanism and governance model, but can still communicate and transfer assets with other blockchains through the Cosmos Hub. Cosmos focuses on creating an ecosystem of blockchains that can interact seamlessly while allowing each blockchain to retain its independence and flexibility.

While both projects share the goal of blockchain interoperability, they differ in their approach to security, governance, and how they envision the network of interconnected blockchains functioning. Both Polkadot and Cosmos offer unique solutions to the challenge of interoperability, contributing to the broader development of the blockchain ecosystem.

With Polkadot's unique architecture, opportunities open for a seamless exchange of information and transactions across diverse blockchains, creating a fully interconnected, decentralized web.

The Vision Behind Polkadot:

Dr. Gavin Wood, one of the original developers of Ethereum, launched Polkadot with a vision to enable different blockchains to communicate and work together seamlessly. He recognized the limitations of existing blockchain networks, including their inability to interact with each other.

Key Features of Polkadot:

- » **Interoperability:** Polkadot's central feature is its ability to enable different blockchains, both public and private, to share information and transactions in a secure and trustless way. This opens up new avenues for cross-chain applications and services.

- » **Scalability:** By processing transactions on multiple parallel chains (parachains), Polkadot significantly increases the transaction capacity and efficiency of its network, addressing one of the most pressing issues facing legacy blockchains like Bitcoin and Ethereum.
- » **Shared Security:** Polkadot introduces a novel shared security model, where the security of the entire network benefits all connected parachains, reducing the risk of attacks and increasing the overall resilience of the ecosystem.
- » **Upgradability:** Polkadot's governance model allows the network to adapt and upgrade without the need for contentious hard forks, ensuring that the network can evolve in response to changing needs and technologies.

Practical Application: A Polkadot-powered Reintegration Platform

At the Prison Professors Charitable Corporation, we're always thinking about how we can create a platform to advance our push for prison reform. As a multi-chain framework, or platform, Polkadot could enable various blockchains to interoperate and securely share information. It extends beyond DeFi and smart contracts with its scalable and interoperable framework. It could become a great foundational infrastructure for all the ways that people coming out of prison need to connect with stakeholders and service providers.

We're thinking about a venture that we're calling "ChainReintegrate," which would leverage Polkadot's interoperability and shared security features to connect various blockchain-based services and resources that support reintegration efforts.

How ChainReintegrate Works:

- » **Educational and Vocational Training:** ChainReintegrate connects with blockchain-based educational platforms offering courses and certifications. Through cross-chain transactions, individuals can securely enroll in and complete courses, with their achievements recorded on the blockchain.
- » **Employment Opportunities:** The platform links with blockchain-enabled job marketplaces, allowing individuals to share their newly acquired skills and certifications directly with potential employers, facilitating trust and transparency in the hiring process.

- » Financial Services: ChainReintegrate integrates with DeFi platforms to provide access to financial services such as banking, loans, and grants, enabling individuals to manage their finances, start businesses, or fund their education.
- » Community Support and Mentoring: The platform connects individuals with blockchain-based community support networks, offering mentoring, advice, and peer support to aid in their reintegration journey.

The Impact of ChainReintegrate:

By leveraging Polkadot's capabilities, ChainReintegrate creates a comprehensive ecosystem that addresses multiple aspects of reintegration – from education and employment to financial stability and community support. It exemplifies how blockchain technology, and specifically Polkadot's innovative framework, can be harnessed to create positive social change and support individuals in their transition back into society.

As Prison Professors continues to explore the dynamic world of altcoins, Polkadot stands out as a key player in shaping the future of decentralized technology and its application in creating a more inclusive, secure, and interconnected digital economy.

Investment:

On Friday, February 23, 2024, at 5:20 pm Pacific time, the price of Bitcoin continued trading in a range when I looked on Coinbase: \$50,806.60

- » Total investment in BTC at end of day, February 19, 2024: \$192,202.76.
- » Total holdings: 4 BTC
- » Total value: \$203,226.40
- » Gain or Loss: \$11,023.64

The value of my holdings surpassed the total amount that I had paid by \$11,023.64 since I began investing in cryptocurrency, on January 31, 2024.

Separately, I purchased 1 ETH. It was valued at \$2,954.74 and Coinbase charged me a fee of \$66.48. My total investment: \$3,021.22. Value of ETH at end of day: \$2,926.46.

- » Value of Link today: \$18.01
- » Value of ADA today: \$0.5859
- » Value of ATOM today: \$9.99
- » Value of DOGE today: \$.0827
- » Value of Litecoin today: \$68.82
- » Value of Monero (XMR) today: \$123.07
- » Value of Polkadot (DOT) today: \$7.59

Disclaimer:

For full transparency, I am not an investment advisor. Our nonprofit, Prison Professors, offers these lessons for the singular purpose of helping people learn more about the digital economy. I provide information on my personal investments to show that even a person who served 26 years can participate in the digital economy. I am an investor and a speculator, understanding the risks. No one should invest in any asset class without a strategy and a plan, as shown through our introductory course: Preparing for Success after Prison. Always develop an understanding of investment risks—especially with cryptocurrency.

Critical Thinking Questions:

1. How does Polkadot's approach to interoperability and scalability address some of the current limitations of blockchain technology?
2. In what ways could platforms like ChainReintegrate, powered by Polkadot, impact the reintegration process for formerly incarcerated individuals?
3. Consider the potential challenges and opportunities of implementing a Polkadot-powered reintegration platform. What factors would be crucial for its success?

Advocacy Initiative:

To the extent that you're willing to participate in our advocacy efforts, please share your story and responses through the manner that works best for you:

1. Send through email to Interns@PrisonProfessorsTalent.com
Subject line: Digital Economy Course

2. Send through regular mail:
Prison Professors
% Digital Economy Course
32565 Golden Lantern, Suite B-1026
Dana Point, CA 92629
3. Send through the Edovo tablet
Prison Professors
% Digital Economy Course
32565 Golden Lantern, Suite B-1026
Dana Point, CA 92629

Three most recent lessons sequences:

- » Lesson 18: Monero (XMR)
- » Lesson 19: Polkadot (DOT)
- » Lesson 20: Ripple (XLR)