Directed Acyclical Graphs (DAGs)

Return to Consensus Mechanism

Directed Acyclic Graph (DAG) is the DIDO that does not look like a chain of transactions or blocks, but rather as the name suggests, more like a graph. It's possible that the DAG model may substitute blockchains because of they are the more effective structure for storing data and processing transactions online.[1)].

- **Note:** DAGs are one reason why DIDO tries to avoid the use of terms such as Blockchain or Distributed Ledger Technology. Both of these terms imply a technology for solving the problem, not the concepts of Distributed Immutable Data Objects, aka DIDO.

So what is this model trying to address? Mostly decentralization and scale, two of the most talked-about pain points of existing blockchain technology.

Another basic yet prime blockchain consensus model that every mobile app development services company working with Blockchain must be familiar with is Directed Acyclical Graphs (DAG).

In this type of Blockchain consensus protocol, every node itself prepares to become the 'miners'. Now, when miners are eradicated and transactions are validated by users themselves, the associated fee reduces to zero. It becomes easier to validate transactions between any two closest nodes, which makes the whole process lightweight, faster, and secure.Webpage: BHARDWAJ

Comben[2)] concludes:

The DAG model has the potential to become Blockchain 3.0 after the Bitcoin and Ethereum revolutions. However, the new framework is in its infancy, and there's still a lot to discover in terms of the potential of this new technology.

The DAG system enables scalability, but it has its downsides for small networks, which are more vulnerable to attacks. Until DAG systems are proven and tested, traditional blockchains will remain more popular, despite their scalability issues.

[1)] , [2)]
Christina Comben, Yahoo Finance, Which cryptocurrencies use a DAG-based framework and why?, 7 June 2019, Accessed: 20 July 2021, https://finance.yahoo.com/news/cryptocurrencies-dag-based-framework-why-081019399.html