# Article information:

Scalability improvement and analysis of permissioned-blockchain - ScienceDirect
<https://www.sciencedirect.com/science/article/pii/S2405959521001041>

# Article summary:

1. Permissioned blockchains, which are used in industries such as healthcare and logistics, face scalability and throughput issues.

2. The proposed solution to improve scalability involves incorporating data science techniques, specifically using Apache Spark for distributed machine learning.

3. The proposed solution was tested on the Hyperledger Fabric framework and resulted in a 10 times increase in scalability compared to existing methods.

# Article rating:

Appears moderately imbalanced: The article provides some useful information, but is missing several important points or pieces of evidence that would be required to present the discussed topics in a balanced and reliable way. You are encouraged to seek a more balanced perspective on the presented issues by exploring the provided research topics and looking at different information sources.

# Article analysis:

The article titled "Scalability improvement and analysis of permissioned-blockchain" discusses the scalability issues faced by permissioned blockchains and proposes a solution to address this problem. The article provides an overview of blockchain technology, its potential applications, and the difference between permissionless and permissioned blockchains.

The article highlights the importance of scalability in blockchain technology and how it is a major concern for organizations looking to adopt this technology. It cites several studies that have analyzed the scalability of different blockchain platforms, including Hyperledger Fabric, which is used as the basis for the proposed solution.

The proposed solution involves incorporating data science techniques, specifically distributed machine learning using Apache Spark, to improve scalability. The article explains how this approach can help handle a larger number of transactions while reducing overheads and improving confirmation times.

Overall, the article provides a comprehensive overview of the challenges faced by permissioned blockchains in terms of scalability and proposes a promising solution. However, there are some potential biases in the article that need to be considered.

One possible bias is that the article focuses solely on the benefits of using distributed machine learning with Apache Spark without discussing any potential drawbacks or limitations. While this approach may improve scalability, it may also introduce new complexities or require additional resources that could offset any gains made.

Another bias is that the article presents only one side of the argument regarding permissioned blockchains versus permissionless blockchains. While it acknowledges that both types have their advantages and disadvantages, it does not explore any counterarguments or present both sides equally.

Additionally, while the proposed solution shows promise in improving scalability for permissioned blockchains, there is no evidence presented to support its effectiveness beyond theoretical considerations. Further research would be needed to validate its claims.

In conclusion, while the article provides valuable insights into addressing scalability issues in permissioned blockchains through data science techniques such as distributed machine learning with Apache Spark, readers should consider potential biases and limitations when evaluating its claims.

# Topics for further research:

* Limitations of distributed machine learning with Apache Spark in blockchain technology
* Comparison of scalability between permissioned and permissionless blockchains
* Potential drawbacks of permissioned blockchains
* Real-world applications of permissioned blockchains
* Alternative solutions for improving scalability in blockchain technology
* Case studies of organizations successfully implementing permissioned blockchains

# Report location:

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