A Template for Useful Proof of Work[*]

Student Poster Abstract

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Cryptocurrencies and numerous other dispersed frameworks use agreement calculations so as to accomplish concession to information. The calculation utilized by Bitcoin and numerous different cryptographic forms of money for this design is known as Proof of Work (PoW). A PoW algorithm typically demands that a large amount of computing power be used to solve an easily verifiable problem. Current implementations of Proof of Work entail vast quantities of energy consumption, where the bulk of this energy is expended exclusively on consensus-building. Our aim is not to minimize energy consumption directly, but to make it possible for Proof of Work to produce more useful and pragmatic computation, so that energy is saved by not running these computational tasks separately. We are building a template for proof of work protocols in our study, such that if followed, a protocol with similar security guarantees can be assured as the proof of work found in Bitcoin. Secondarily, we also develop "useful" prototypes based on this template. Our approach is not to directly decrease energy consumption, but rather to make less waste from such consumption.