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Beyond bitcoin

Bitcoins underlying technology, the blockchain is a technology that will change the way many industries are operated and the fashion in which they are governed. Blockchain will in the future time be the foundation for concepts and establishments such as metaverses, shipping & logistics systems, telecommunication, law enforcement protocols etc. However, this technology also brings along quite a few challenges when implemented in existing grand operations, systems, and applications. Compared to TTP's, take for instance the FAANG companies as an example, systems, services, and applications built on blockchain technology *have* the potential to be decentralized, permissionless and trustless. As the Nakamoto style consensus is over 10 years of age in release and service, questions to whether this is sustainable in the long run. This consensus mechanism is the first to successfully solve the double-spending problem of other decentralized networks project. This network provides a network where transactions can be sent securely, being practically immutably and being able to thrive in an untrusted environment.

Based on these promising characteristics, Dapps, DAOs, and future 5G applications can utilize this technology, to enhance their technological architecture, robustness, and autonomation – now there are some points to consider before adopting this tech at a sudden blink. When talking about the transaction speed of the network, it has been found evident in blockchain networks that there is a direct negative correlation between the degree of decentralization and transaction speed of a network. This is due to the transactions must reach all the operating nodes to reach a consensus, which can be timely. Proposals such as consortium and private blockchains have been proposed to tackle this problem, where a selection of governance nodes need to verify the transaction, discarding the rule that every node needs to verify the transaction to reach consensus – but in turn more centralization.
Services in the future will also most likely be comprised of many microservices which some might utilize blockchain technology to inherit its technological perks and characteristics, which can strengthen the service as a whole.

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Also using smart contracts on networks such as Ethereum, Cardano or Polkadot will enable parties to issue a legal contract of ownership of property (media, art, and in theory everything that can be declared ownership of) without a lawyer or intermediary partaking in the legal action. In the light of this, there is also a big discussion to which consensus mechanism is suitable for the specific blockchain technology, in POW entails high transaction fees and carbon footprint, where POS can lead to whales taking control of the network due to staggering accumulations of assets on the blockchain leading to a higher authority and greater influence to the network governance