Future of Block Chain – Viable Use Cases

[1] The potential uses for blockchain technology go well beyond financial transactions.

[1] Any use case that requires

* A reliable recording of the truth
* A distributed recording with no single point of failure
* Anonymity of the participants (or not)
* Irreversibility; such as is common in financial transactions. When an error transaction occurs, the error is not deleted or removed but an additional transaction to negate the incorrect transaction is recorded.
* Automated transactions; workflows for example. Worker A completes a task and the work object is queued to worker B and so forth.

Experiments in this space tend to be in early stages, but they range from medical records, digital rights, identity and supply chain management.

[2] Medical Records: MedRec is a proposal from M.I.T which would enable patients to own their medical records therefore presumably removing an intermediary. Smart contracts act as an intelligent representation that links patients and providers to the addresses of existing medical records. Medrec does not ‘store’ the record directly; rather encodes metadata that allows records to be accessed securely by patients, unifying access to data across disparate providers. The metadata contains information about ownership, permission and the integrity of the data being requested. The full details of the smart contract structure and operation can be found in MedRec’s technical documentation.

[3] Digital Rights and Micropayments: The Brave Browser aims to “fix the web by giving users a safer, faster and better browsing experience”.

Brave is an open source web browser built by a team of privacy focused pioneers of the web. It aims to make browsing faster and private by blocking ads and trackers by default. The intend to enable users to opt into receiving some ads or donate to publishers. When ads are enabled they will be fewer but higher quality. Even if a user opts into receiving ads, trackers will still be blocked and privacy will still be protected.

[4] Identity: Uport is an Ethereum address. So if all you need when interacting with an end user is their Ethereum address, this is provided by uPort. However, uPort also allows apps and their users to exchange information privately, while still backed by the security of the Ethereum blockchain. In more detail, a uPort identity is a complete digital representation of a person (or app, organization, device, or bot) that is able to make statements about who they are when interacting with smart contracts and other uPort identities, either on-chain or off-chain. This ability to make statements about themselves, without relying on centralized identity providers, is what makes uPort a platform for self-sovereign identity. The real power of uPort is that it makes your Ethereum app more approachable to your end users. Some of the interactions enabled by uPort are simple blockchain transactions like buying shares on the Gnosis prediction market, while others include off-chain interactions like making private statements to other uPort users or apps. All of this is possible without your end users having to endure complex key management.

1. C. Catalini. (2017, Mar.). How Blockchain Applications Will Move Beyond Finance. *Harvard Business Review.* [Online]. *11(7)*. Available: [https://hbr.org/2017/03/how-blockchain-applications-will-move-beyond-finance](http://www.halcyon.com/pub/journals/21ps03-vidmar).
2. MedRec. (2018, Oct.). What is MedRec?. *MIT MedRec Team.* [Online]. *9(4)*. Available: https://medrec.media.mit.edu
3. Brave (2018, Oct.). About Us. *Brave Team.* [Online]. *3(2)*. Available: https://brave.com/about/
4. P. Braendgaard. (2017, Feb.). What is a uPort identity?. *Uport.* [Online]. *3(2)*. Available: https://medium.com/uport