

Exam – Blockchain

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Today, people are attending universities more and more with each passing year. This can lead to some issues regarding managing the students and the staff of the said university. One solution to avoid bureaucratic issues is digitalisation by any means. One such mean could be the implementation of a blockchain application that can manage the students of the whole university, and, that perhaps could solve other present issues like accounting or supplying the university with resources.

Designing an application based on this technology can be quite enticing. Blockchain is very stable due to its decentralised structure: blocks that are chronologically and securely connected, grouped in structured akin to ledgers. It runs on a public key cryptosystem. In a transaction between two parties there is no intermediary/middle man. For example, in a transaction between two companies there is usually a bank representative that oversees the process.

In our case, when a student enrolls in a university, one idea might be that he pays a one-time short fee to be able to have access to his data. When the student is required to hand over to the secretary the necessary certificates/documents, he would need to consent to allowing the staff of the university to use his data in order to print new documents. For example, other than the first time (when he enrolled) if a student is required to hand in other documents, like a language certificate other than English, or a newer one, he would only need to upload these and then give permission to the staff to use the document.

Implementing an application with this technology does not come without a price. Due to the fact that blockchain is a very stable technology, it makes it

harder to modify or to delete a node and a hard fork may be required in order to create a new node to replace the existing one. There is also the issue that because this technology's security is based on public key encryption, if a said student John loses his private key, then he would have lost all his information regarding his boarding of the university, and the university as well would not be able to access his information since the access of information is based on the consent of both parties.

All in all, the cons outweigh the pros. In the future, perhaps new solutions may appear in order to better implement this type of technology in the managing branch of different institutions, be it managing the student or the staff.