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Blockchain and NFT Applications in Libraries

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There are several ways that libraries could use blockchain technology, but many of the potential uses also create more problems. Between legal concerns, time to implement, and financial impact, it's important to weigh the costs and benefits. To that end, some of the top groups in information services have started to examine blockchain for library use (Cornejo, 2020). And according to MacKenzie Smith (2020), blockchain is "ill-suited to complex and chaotic data" (p.41). Libraries are in constant states of change, where items go from one person to the next or are available for group use in digital formats, and so on.

Therefore, we must consider what would be the easiest start into the world of blockchain use. Once users are familiar with a system, they can often see how else it can be used. My proposal is that blockchain in libraries start with certifications. This way, it can be used internally and also for patron use.

People come to the library to obtain certifications in everything from typing skills to advanced video editing software. Having these certifications stored in blockchain means that these certifications can't be accidentally erased. The patrons who earn the certifications don't necessarily have to hold on to a printed piece of paper, either.

Additionally, employees can be certified in various ways- perhaps as a trainer on specialized equipment like 3D printers, or for administering specific programs to the public, or being on a trained outreach team. They can then use these certifications when applying for other positions within the library system to prove skill set and qualifications.

And this concept is already in use at MIT, where they are issuing blockchain diplomas to some of their graduates (McMorrow, 2020). This purpose is a bit backward to how I can see this being used in libraries, because while MIT is issuing students their own artifact, they are not storing or hosting the blockchain diplomas, while I would anticipate that libraries would store the certifications, perhaps in addition to providing an NFT to said certificate.

The biggest issue that I can see with blockchain in general is that there is no "administrator"- when a patron forgets their PIN for their library card, a librarian can reset it for them. If they forget their online password, they can hit the "forgot password" button. But with blockchain, if you forget your password or lose your key, you just don't have access anymore (Swanson, 2020). This has notably been in the news lately, with Stefan Thomas (Neate, 2021) this year and James Howells in 2017 (Carter, 2017), each losing millions of dollars in Bitcoin because they accidentally threw out the drive that had the key on it. And they aren't alone. "Wallet Recovery Services, a business that helps find lost digital keys, said it had gotten 70 requests a day from people who wanted help recovering their riches (Popper, 2021)." So this solution, while a fascinating jump ahead in security, may not end up being the next best thing.

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