Executive Summary – Blockchain National Forum

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The future is a combination of the change that happens in the world (inbound change) and what individuals and organizations do with those changes (outbound change).[[1]](#endnote-1) With a technology like blockchain, there is a tremendous amount of inbound change activity – the appearance of blockchain solutions across various sectors – but individuals and organizations may still be tentative around the potential and capacity for creating outbound change from this technology for the library sector.

In addition to speculating possible outbound changes, it may be helpful to look at how inbound changes might move closer to our organizations’ operations and purposes. This might outline some of the first encounters libraries may have with blockchain and the potential partners with whom libraries will want to involve themselves in conversations and planning.

*Blockchain and Identification*

Among the 35 city projects selected as [“Champion Cities” in Bloomberg Philanthropies’ American Cities Initiative](http://mayorschallenge.bloomberg.org/2018-champion-cities/) was a proposal from the city of Austin to pilot a [new blockchain platform to improve identity services for its homeless population](https://mayorschallenge.bloomberg.org/ideas/austin/). Austin’s project seeks to provide those experiencing homelessness with a simplified way of keeping their personal information with them, a critically important goal for a population that is often at risk of losing their possessions or documentation. The portable identification will be achieved through an app that uses blockchain technology to improve the city’s ability to verify the identity of a person, integrate information about the various services that person has accessed, and empower the individual to “own” their own identity record.[[2]](#endnote-2) Austin’s approach is similar to [Blockchain for Change’s](https://blockchainforchange.org/) pilot project in New York City, where people experiencing homelessness will receive a free smartphone with the [Fummi app](https://blockchainforchange.org/fummi/), designed to help users manage their digital identity, access shelters and food pantries, and make use of financial services.[[3]](#endnote-3)

As access to many library services and resources are contingent on proof of identity and affiliation with a given library or community, library professionals may be especially interested in monitoring blockchain’s influence on identification systems. Staying informed of conversations at the city or state level regarding the use of blockchain technology to support government-issued identification tools could help libraries adapt library card and access policies to reflect the most current practices.

*Blockchain and Education Recognition Systems*

In 2015, Philipp Schmidt of MIT’s Media Lab proposed ways in which blockchain technology might help change the traditional ways that certificates and credentials are stored, verified, and validated, creating digital platforms that store credentials with blockchain and cryptography features that allow users to securely share the credential and recipients to trust their authenticity.[[4]](#endnote-4)

Over the past year several institutions have begun to explore blockchain supported credentials. MIT announced a pilot to provide 111 graduates with the option to receive their diplomas via the [Blockcerts](https://www.blockcerts.org/) Wallet app, which would allow them to quickly and easily get a verifiable, tamper-proof version of their diploma that they could share with employers, other educational institutions, or their professional and personal networks.[[5]](#endnote-5) Similarly, Southern New Hampshire University is piloting a program with selected alumni to receive a [Blockcerts](https://www.blockcerts.org/) digital version of their diploma.[[6]](#endnote-6)

As educational institutions, libraries will be very interested in the ways that blockchain technology is making inroads in education. For those libraries that provide instruction, formal and informal courses, or other educational opportunities, identifying new ways for individuals to store, validate, and verify their learning will be especially important.

*Blockchain and Personal Data*

As governments invest in smart community systems to create programs and services that improve the lives and experiences of their residents, they will need data from not only internet-connected infrastructure but also from individuals. The access, use, and control of personal data can raise concerns about privacy and the ownership of the data that individuals produce.

As part of a three-year EU-funded project, [DECODE (the Decentralised Citizen Owned Data Ecosystem)](https://www.decodeproject.eu/) will run four pilot trials providing 1,000 people with an app through which they can share data about themselves to help companies or government groups create products or services to improve the city – the app will use blockchain technology to store each participant’s data-sharing preferences so that the individual can decide exactly how much of their data is uploaded to the platform and how it should be used across government agencies and private companies.[[7]](#endnote-7)

As key assets on campuses and in communities and as organizations interested in improving services and programs, monitoring the ways that blockchain could help individuals more securely and responsibly share their data with government organizations could be very important.

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2. Chricton, Danny. (2018, April 14). “Austin is piloting blockchain to improve homeless services.” *TechCrunch*. Retrieved from <https://techcrunch.com/2018/04/14/austin-is-piloting-blockchain-to-improve-homeless-services/> [↑](#endnote-ref-2)
3. Schiller, Ben. (2017, December 6). “This new blockchain project gives homeless New Yorkers a digital identity.” *Fast Company.* Retrieved from <https://www.fastcompany.com/40500978/this-new-blockchain-project-gives-homeless-new-yorkers-a-digital-identity> [↑](#endnote-ref-3)
4. Schmidt, Philipp. (2015, October 27). “Certificates, reputation, and the blockchain.” *MIT Media Lab – Medium*. Retrieved from <https://medium.com/mit-media-lab/certificates-reputation-and-the-blockchain-aee03622426f> [↑](#endnote-ref-4)
5. Durant, Elizabeth & Trachy, Alison. (2017, October 17). “Digital diploma debuts at MIT.” *MIT News*. Retrieved from <http://news.mit.edu/2017/mit-debuts-secure-digital-diploma-using-bitcoin-blockchain-technology-1017> [↑](#endnote-ref-5)
6. Boutselis, Pamme. (2018, June 4). “Blockchain pilot empowers ownership, access of school records.” *News @ Southern New Hampshire University*. Retrieved from <https://www.snhu.edu/about-us/news-and-events/2018/06/blockchain-securing-school-records> [↑](#endnote-ref-6)
7. Reynolds, Matt. (2017, May 22). “Citizens give up data in blockchain project to improve cities.” *New Scientist*. Retrieved from <https://www.newscientist.com/article/2131950-citizens-give-up-data-in-blockchain-project-to-improve-cities/> [↑](#endnote-ref-7)