Can Blockchain Technology Prevent Voter Fraud?

ASHLEY MCMAHON and MATTHEW A. HAMILTON

According to the National Academies of Sciences, Engineering, and Medicine, the 2016 US presidential election “was targeted by actors sponsored by the Russian government.” These actors destabilized the strength and legitimacy of the American electoral system, a crisis that remains a clear and present danger for subsequent elections. With voting infrastructure weakened, information professionals are justifiably concerned about maintaining the integrity of electronic voting calculations, and records collection and storage. Archivists can play a critical role in promoting the legitimacy of electronic voting records by implementing blockchain technology in their management of these records. Blockchain already has a proven track record in the healthcare industry. In this research, we present voting records as an example of the implementation of blockchain technology in electronic records management, correlating directly from its implementation in the healthcare field.

Every citizen should have the right to vote, and access to protected voting records is an extension of that right; assurance of their accuracy informs the present and, subsequently, will educate prospective scholars and researchers. Although blockchain technology is not immune to cyberattacks, the benefits of its implementation coupled with safeguards to prevent vulnerabilities presents a unique solution to promote electronic records management in the 21st century.

About the authors:

Ashley McMahon is a current graduate student pursuing her MLIS with a concentration in archival studies through the University of Alabama. Her research interests include the intersections of blockchain technology and archives. Ashley is the President of the University of Alabama chapter of the Society of American Archivists. She currently lives in New Jersey.

Matthew A. Hamilton holds an MSLIS from St. John’s University with a specialization in Library and Archives Management. Currently, he is a graduate student at the University of Alabama. His research focus is blockchain technology and how it can contribute to improve transparency and accountability in government. Prior to his commitment to the field of Libraries and Archives, he earned an MFA from Fairfield University. His stories and poems have appeared in a variety of national and international journals. His chapbook, The Land of the Four Rivers, published by Cervena Barva Press, won the 2013 Best Poetry Book from Peace Corps Writers. His second poetry collection, Lips Open and Divine, was published in 2016 by Winter Goose Publishing. The Wishing Tree, a novel about the 1915 Armenian Genocide, was published by Winter Goose Publishing in 2020. He and his wife live in Richmond, Virginia. Visit him here.