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# Creating Cryptolaw for the Uniform Commercial Code

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*Abstract*

*A contract generally only binds its parties. Security agreements, which create a security interest in specific personal property, stand out as a glaring exception to this rule. Under certain conditions, security interests not only bind the creditor and debtor, but also third-party creditors seeking to lend against the same collateral. To receive this extraordinary benefit, creditors must put the world on notice, usually by filing a financing statement with the state in which the debtor is located. Unfortunately, the Uniform Commercial Code (U.C.C.) Article 9 filing system fails to provide actual notice to interested parties and introduces risk of heavy financial losses.*

*To solve this problem, this Article introduces a smart-contract-based U.C.C.-1 form built using Lexon, an innovative new programming language that enables the*

* Assistant Professor of Law, Southern Methodist University Dedman School of Law; Affiliated Faculty, Indiana University Ostrom Workshop on Cybersecurity and Internet Governance; Research Associate, University College London Blockchain Research Centre. I am deeply grateful to Henning Diedrich, founder of, and creative genius behind, Lexon, for his comments and input in the development of the prototype. I am also extremely grateful to Paul Hodnefield and Darrell W. Pierce for their excellent and detailed feedback on the prototype and its instructions over several iterations as part of the American College of Commercial Finance Lawyers mentor program. Additional thanks to the organizers and participants of the following conferences for extremely helpful feedback: the 2020 Association of American Law Schools Annual Meeting Commercial Law Section, the 2021 Stanford University CodeX Roundtable, ComplianceNet 2021, and the Chicago Kent Law's 2019 Block (Legal) Tech Conference. I am also extremely grateful to Sara Steves for invaluable research assistance.

*development of smart contracts in English. The proposed "Lexon U.C.C. Financing Statement" does much more than merely replicate the financing statement in digital form; it also performs several U.C.C. rules so that, for the first time, the filing system works as intended. In demonstrating that such a system remains compatible with existing law, the Lexon U.C.C. Financing Statement also reveals important lessons about the interaction of technology and commercial law.*

*This Article brings cryptolaw to the U.C.C. in three parts. Part I examines the failure of the U.C.C. Article 9 filing system to achieve actual notice and argues that blockchain technology and smart contracts can help the system function as intended. Part II introduces the Lexon U.C.C. Financing Statement, demonstrating how the computer code implements U.C.C. provisions. Part II also examines the goals that influenced the design of the Lexon U.C.C. Financing Statement, discusses the new programming language used to build it, and argues that the prototype could be used now, under existing law. Part III proposes five innovations for the Article 9 filing system enabled by the Lexon U.C.C. Financing Statement. Part III then considers the broader implications of the project for commercial law, legal research around smart contracts, and the interplay between technology-neutral law and a lawyer's increasingly important duty of technological competence. Ultimately, by providing the computer code needed to build the Lexon U.C.C. Financing Statement, this Article demonstrates not only that crypto-legal structures are possible, but that they can simplify the law and make it more accessible.*

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