

# BlockchainLab

[smartlawhub.net/blockchainlab](http://smartlawhub.net/blockchainlab)

Seminar jointly organized by the BlockchainLab at HEC Paris & the EDGAM project at Sciences Po Law School

**March 11/2019, 3pm-4.30pm**  
**Sciences Po, 9 rue de la Chaise**  
**ROOM C 391**

## **BlockchainLab #2: SMART CONTRACT AND NATURAL LANGUAGE**

**J. G. Allen, HU Berlin**

### **Wrapped and Stacked: 'Smart Contracts' and the Interaction of Natural and Formal Language**

*European Review of Contract Law, Volume 14, Issue 4, pp. 307–343*

This article explores 'smart contracts' from first principles: What they are, whether they are properly called 'contracts', and what issues they raise for national contract law. A 'smart' contract purports to record contractual promises in language which is both intelligible to human beings and (ultimately) executable by machines. The formalisation of contracting language that this entails is, I argue, the most important aspect for lawyers—just as important as the automation of contractual performance. Rather than taking a doctrinal approach focused on the presence of traditional indicia of contract formation, I examine the nature of contracts as legal entities created by words and documents. In most cases, smart contracts will be 'wrapped in paper' and nested in a national legal system. Borrowing from the idiom of computer science, I introduce the term 'contract stack' to highlight the complex nature of contracts as legal entities incorporating different 'layers', including speech acts by the parties in both natural and formal languages as well as mandatory legal rules. It is the interactions within this contract stack that will be most important to the development of contract law doctrines appropriate to smart contracts. To illustrate my points, I explore a few issues that smart contracts might raise for English contract law. I touch on the questions of illegality, jurisdiction, and evidence, but my focus in this paper is on exploring issues in contract law proper. This contribution should be helpful not only to lawyers attempting to understand smart contracts, but to those involved in coding smart contracts—and writing the languages used to code them.

The BlockchainLab workshops and seminars about blockchain, law and regulation.

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