

Chantal Bompreszi

Implications of Blockchain-Based Smart Contracts on Contract Law



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IMPLICATIONS OF BLOCKCHAIN-BASED SMART CONTRACTS ON CONTRACT LAW

Dr. Chantal Bompreszi

ABSTRACT

Smart contracts are the most advanced blockchain applications. They can also be used in the contractual domain for the encoding and automatic execution of contract terms. Smart contracts already existed before the blockchain, but they take advantage of the characteristics of that technology. Namely, the decentralised and immutable characters of the blockchain determine that no single contracting party can control, modify, or interrupt the execution of smart contracts.

As every new phenomenon, blockchain-based smart contracts have attracted the attention of institutions. For example, in its Resolution of 3 October 2018 on distributed ledger technologies and blockchain, the European Parliament has stressed the need to undertake an in-depth assessment of the legal implications, starting from the analysis of existing legal frameworks. Indeed, the present study aims to verify how blockchain-based smart contracts fit into contract law. To this end, the analysis starts from the most discussed and relevant aspects and develops further considerations. Before that, it provides a detailed description and clarifications about the characteristics, the functioning, and the development of the technology, which is an essential starting point for a high-level quality legal analysis. It takes into considerations already existing rules concerning the use of technology in the life cycle of contracts, from vending machines to computable contracts, and verifies its applicability to blockchain-based smart contracts.

The work does not limit to consider the mere technology, but some concrete scenarios of adoption of blockchain-based smart contracts in the contractual domain. It focuses on the implications of blockchain-based smart contracts on contract formation, contract performance, and applicable law and jurisdiction.

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Table of contents

INTRODUCTION	11
I. Background	11
II. Research problem	12
III. Research objective and question	15
IV. Methodology	16
V. Structure of the book.	18
CHAPTER 1: INTRODUCTION TO BLOCKCHAIN AND SMART CONTRACTS	21
1. Definition and functioning of blockchain.	21
2. Properties of blockchain.	24
3. Origins.	26
4. Evolution.	28
5. Typologies.	30
6. False myths surrounding blockchains.	34
7. Smart contracts.	37
8. Limitations of pre-existing blockchain platforms versus smart contracting platforms.	40
9. Ethereum.	42
10. Use cases.	43
CHAPTER 2: BLOCKCHAIN-BASED SMART CONTRACTS IN THE CONTRACTUAL DOMAIN	47
1. Smart contract: a misleading expression.	47
2. ‘Smart contract code’ versus ‘smart legal contracts’.	49
3. Nick Szabo’s theories.	52
4. Characteristics of smart legal contracts.	56
5. Summary of existing legal literature.	58

Table of contents

6. Applicable form of regulation.	60
7. Types of contract.	65
8. Concrete scenarios.	70
 CHAPTER 3: FROM VENDING MACHINES TO SMART CONTRACTS	 75
1. The historical impact of technology on contracts.	75
2. Sources of law in technological contracts.	79
2.1. Contract formation.	82
2.1.1. Conclusion of contracts through software agents.	90
2.1.2. Digital identity in electronic commerce.	93
2.1.3. Defects of consent: the mistake.	96
2.1.4. Form requirements.	99
2.2. Contract performance: contractual and non-contractual liability.	104
2.3. Jurisdiction and applicable law.	118
 CHAPTER 4: CONTRACT FORMATION	 125
1. Are smart contracts ‘contracts’?	125
2. The ‘meeting of the minds’: offer and acceptance.	127
2.1. Time of conclusion of the contract.	129
2.2. Revocation of offer and acceptance.	131
3. The language of the code.	134
3.1. Contractual intention.	135
3.2. The mistake.	141
4. The e-Commerce Directive and the Consumer Rights Directive. Information requirements.	143
4.1. Acknowledgement of receipt.	148
5. Form.	149
6. Smart contracts concluded ‘smart’.	158
7. Smart contract code as a mean to express contracts or to perform already existing contracts?	161
8. Findings and conclusions.	163

Table of contents

CHAPTER 5: CONTRACT PERFORMANCE	167
PART 1: BREACH OF CONTRACT	167
1. Introduction.	167
2. Potential cases of violation of the contract.	169
3. Clarifications on the meaning of ‘decentralisation’.	171
4. Clarifications on the meaning of ‘validation’ and ‘execution’.	173
5. Analysis of the scenarios.	174
6. Application of existing rules on breach of contract.	177
7. Third-party service providers.	179
8. Identification of the liable party.	186
9. Findings and conclusions.	190
PART 2: EX-POST INTERVENTIONS ON THE CONTRACT	193
1. Introduction.	193
2. Immutability of blockchain.	194
3. Ex-post interventions on contracts. Invalidity.	195
3.1. Termination.	197
3.2. Rescission.	198
3.3. Withdrawal.	199
3.4. Renegotiation.	200
4. The proposed technical solutions.	201
5. Applicability of existing rules. The subject matter of the contractual obligation.	203
5.1. The false myth of decentralisation.	205
5.2. Identification of the obliged party.	206
6. Ex-ante renounce to ex-post interventions. Invalidity.	207
6.1. Termination.	209
6.2. Rescission.	211
6.3. Withdrawal.	211
6.4. Renegotiation.	212
6.5. Limitations to contractual autonomy.	213
7. Findings and conclusions.	214

Table of contents

CHAPTER 6: JURISDICTION AND APPLICABLE LAW	217
1. Introduction.	217
2. Blockchain and the Internet.	218
3. Criteria of determination of jurisdiction and applicable law.	
Location of contract formation.	220
3.1. Location of contract performance.	221
3.2. Place of residence, domicile, business, and administration.	222
4. Online Dispute Resolution.	223
4.1. Blockchain and ODR.	226
5. Findings and conclusions.	228
CHAPTER 7: CONCLUSIONS	231
1. Summary of preceding conclusions.	231
2. False myths surrounding blockchain and smart contracts.	234
3. Applicability of existing rules.	236
4. Open issues.	237
5. Research question answers.	238
BIBLIOGRAPHY	241