

MANTE, J. and MAK, C. 2023. "Smart contracts" versus "smart legal contracts": shifting terminology. [Blog post].  
Posted on the RGU Law School Blog [online], 2nd October 2023. Available from:  
<https://rgulaw.blog/2023/10/02/smart-contracts-versus-smart-legal-contracts-shifting-terminology/>

# "Smart contracts" versus "smart legal contracts": shifting terminology.

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2023

## **"Smart Contracts" versus "Smart Legal Contracts": Shifting Terminology**

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**Category: Law and Technology**

The notion that smart contracts are not actually contracts is a common assertion found in various writings discussing the subject. Lawyers can be excused for being confused by the fact that 'smart contracts' do not qualify as contracts in the conventional sense. The term 'contract' in its noun form consistently denotes some form of agreement or pact. From a business and legal standpoint, the term evokes imagery of an interchange between two parties—whether it is the exchange of commitments, actions, or a combination of promises and actions. It is for this reason that the debate about the nature of smart contracts persist. This piece briefly explores the controversy surrounding the meaning of smart contracts. It delves into the reasoning behind the differing opinions and examines the most recent effort by the English Law Commission to address and resolve this ongoing dispute.

Recent progress in blockchain technology has led to a remarkable upsurge in its application across various sectors, including finance, real estate, healthcare, and insurance. This remarkable advancement can be attributed to the integration of smart contracts within blockchain systems. Through a digital ledger mechanism that can securely timestamp and archive transactions, blockchains provide industries with an intelligent approach to managing substantial volumes of data in a decentralized and immutable way. This ensures that the data remains unalterable and immune to control from a single centralized entity. Functioning as a "trustless system," it empowers individuals to engage in business transactions with one another, regardless of mutual trust.

While the features of blockchain technology are undeniably impressive, it is the integration of smart contracts that has propelled blockchain into an imminent ubiquitous system. The inclusion of smart contracts introduces an extra layer of functionality, transforming the technology beyond secure data storage to a realm where pre-programmed instructions are autonomously executed. This advancement eliminates the necessity for trusted intermediaries to oversee transactions. Like a vintage vending machine, the utilisation of smart contracts within a blockchain imparts a form of autonomy, allowing the blockchain to execute tasks with minimal or no external intervention. Even so, the technology is not without its complexities. The deterministic nature of smart contracts means they lack the flexibility, subjectivity, and discretion often found in conventional contract scenarios.

So, what exactly is a smart contract? This is where the discussion takes an intriguing turn. The name of the technology does not paint a complete picture. Some contend that it is a misnomer. To many writers on the subject, a smart contract is essentially a computer code or programme, a technological component. It is adaptable to various applications, including tasks involving conditional statements (if/then scenarios). [Christidis and Devetsikiotis](#) compared smart contracts, in this aspect, to stored procedures within relational databases—rules based on event-condition-action logic. [Bacon et al](#), on the other

hand, define smart contracts as 'computer programs' designed to automatically execute specified functions based on a predetermined set of rules. From this viewpoint, one could make the case that these programmes are not actually contracts in the conventional sense.

The ambiguity surrounding the term 'smart contract' can be traced to its provenance. [Nick Szabo](#), the individual credited with popularizing the phrase 'smart contracts,' defined it as "a set of promises, specified in digital form, including protocols within which the parties perform on these promises." This definition creates the impression that a smart contract is a 'set of promises...' which are recorded and performed by codes. From this perspective, it is logical to perceive this concept as possessing legal characteristics. However, the challenge with this stance is that utilizing the technology to document terms and facilitate contractual performance is merely one among numerous tasks the technology can perform, many of which are non-legal in nature. Not every 'if/then' scenario corresponds to a contractual or legal matter.

In case one assumes this to be a mere game of semantics, it is important to recognize the essence of this discussion namely, the legal implications of smart contracts. If they are treated as legally binding agreements, they would need to adhere to the prerequisites of a valid contract within English and Scots law. However, if they are seen as tools that support recording and/or enforcement of legal agreements, then the validity of the resultant agreement would not hinge on the format of the contract itself (i.e., the computer code). It does seem peculiar to classify a computer programme or code on its own as a contract. Instead, if certain attributes of the programme streamline or simplify the contract's creation, documentation, performance, or enforcement, it is these specific characteristics that would bestow the termed 'smartness' on the relevant agreement.

'Contract' is a legal construct, an abstraction which can take many different forms. Historically, contracts could be spoken, documented in writing, or a combination of both. The stipulations of a conventional paper-bound agreement can be transposed or produced in an electronic format, termed electronic contract. These types of agreements are automated, triggering self-execution upon the fulfilment of specific conditions. In this context, a smart contract is an agreement in a digital format. One distinction between electronic contracts and smart contracts is that the former is composed in human language, but the latter is written in machine language (codes).

Based on the preceding information, it is evident that while all smart contracts are computer programmes, not all of them have legal connotation. Hence, the necessity for clarifying terminology. This is where the guidance provided by the English Law Commission to the UK Parliament proves beneficial. The [Commission's report](#) proposes the adoption of a fresh term, 'smart legal contracts'. Their advice differentiates between smart contracts and smart legal contracts. The former is characterized as "computer programs that autonomously execute, either fully or partially, without requiring human intervention," or "computer code that, upon the occurrence of specific

conditions, is capable of automatic execution according to pre-defined functions."

When smart contracts are utilized to outline legal rights and responsibilities as well as the conditions of their execution, they are considered a variant of smart contracts and are termed smart legal contracts. Consequently, the Commission defines a smart legal contract as "a legally binding agreement in which some or all contractual terms are established and/or executed automatically through a computer program." Smart contracts, in the view of the Commission, can take three distinct formats: a contract in natural language with automated execution, a hybrid contract, or a contract solely based on code. The differentiation among these forms of smart legal contracts hinges on the degree to which the complete contractual arrangement or a segment of it is automated or coded.

From the foregoing, smart legal contracts should be viewed as an additional type of contract, similar to standard form contracts, contracts generated electronically, and the like. Although they possess their own distinct characteristics, one of which is their unique format, smart contracts must comply with the legal requirements of a valid contract regardless of the form. They must also be subject to contract principles on terms and conditions, vitiating factors, breach, remedies, and enforcement. There may be difficulties around interpreting the coded terms. The Commission is confident that the common law's incremental approach can support a measured and effective development of the law should any novel issues arise as the technology develops further.