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Note to Reader

This document contains Owl Explain's article, "*Understanding and Classifying Blockchain Tokens*" as it appears in GBBC's International Journal of Blockchain Law - Volume VIII.

To explore the rest of the above articles in Volume VIII, you are invited to view the complete publication. [Please access the complete Journal on the IJBL website here.](#)

UNDERSTANDING AND CLASSIFYING BLOCKCHAIN TOKENS*



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We used to live in a paper-based world. For centuries, legal rights and obligations were represented on paper, often including stamps and seals and ribbons for good measure. These paper documents set forth the bundle of rights and their ownership, whether it was for real property, stock in a company, intellectual property, or any other type of thing.

The law around ownership and its transfer grew up in this paper-based system. We wrote out on paper a description of the thing and who owned it. Paper also facilitated the transfer of ownership. In certain situations, ownership interests (including liens), in order to be effective, needed to be recorded with a central repository by lodging paper there. Representing things and their ownership on paper dominated the legal world.

With the rise of computers and, more recently, the Internet, the law has sought to keep up with the new way in which things could be represented: digitally, in [databases](#). The Electronic Signatures in Global and National Commerce ([ESIGN Act](#)) from 2000 is one example of how the law in the United States sought to recognize the transition to a digital world by allowing parties to agree that an electronic version of a document and/or signature is the binding version.

Yet these digital records mostly replicated the paper-based systems that had been used for centuries as simply a digital formatting to appear just like the old paper documents, even to the point of an electronic physical signature, with signers often asked to draw it with their finger

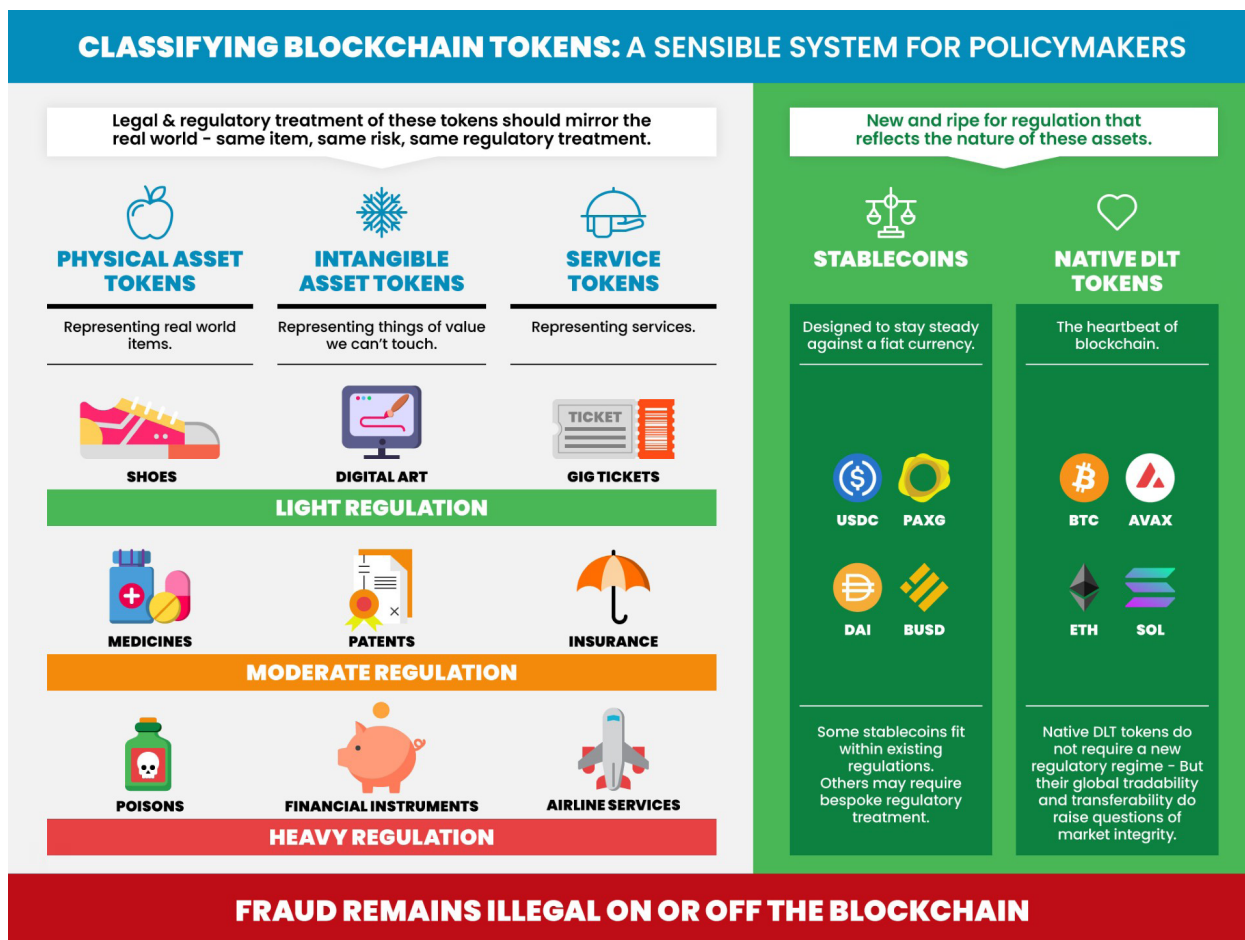
Enter blockchain, a technology that allows humanity, including lawyers, to move beyond paper and paper-replica systems by solving the hard computer science problems of creating digital uniqueness and a means to establish and transfer ownership of digitally unique things. We call this process "[tokenization](#)" with the resulting tokens referred to by many names such as cryptoassets, digital assets, virtual currencies, etc. It is all about creating digital representations on a blockchain to make them more easily recognized and transferred. It can be used for anything tangible (real-world items) or intangible (ideas) – a piece of art, a cool pair of sneakers, stock in a company, rights to your favorite song, tickets to a concert, a pint of blueberries. Tokenization is the natural product of blockchain technology and an improvement that blockchains offer over traditional computer databases and paper-based systems.

From a legal standpoint, there are two primary implications of this move from paper to digital tokens. First, we cannot lump all tokens together as an asset class because they are not homogeneous. **Tokenization does not change the essential nature or character of whatever is represented, any more than setting it down on a piece of paper does.** All that has changed is the form of representation – paper is replaced by digital. Second, most tokens and their usage fall within one or another preexisting, well-developed legal and regulatory regime because only the form of representation has changed.

Many existing taxonomies and classification systems fail to recognize these two important points, resulting in confusion. Three category [systems](#) such as the UK Financial Conduct Authority's (FCA) "security tokens", "e-money tokens", and "unregulated tokens" are paradigmatic of the problem (Switzerland's FINMA utilizes similar [guidelines](#); cf. [Singapore](#)).

"Unregulated tokens" (sometimes called "utility tokens") is a category so vast as to give no hint about the myriad legal and regulatory regimes that may apply to the items within it, and yet somehow all of these widely varying asset types are covered by the FCA's financial promotions regime. This approach to "unregulated tokens" presumes that the only type of regulation that might apply to tokenized items is financial instrument regulation, which does not bear up under scrutiny.

The better answer is a taxonomy where the functions and features of the particular token determine its nature under law and therefore the particular regulatory regime that would apply. This insight led to the **sensible token classification system**, represented in Figure 1 below.



Sensible classification means that a taxonomy must be based on the following principles:

First, tokenization does not change the essential nature of the bundle of rights, item or thing that is digitally represented with a token.

Second, the functions and features of the token determine its essential nature; that is, how to evaluate its utilization, valuation, and legal classification. We can represent this idea with the following formula:

$$\Sigma F_n(n) + F_e(n) = TN$$

Where “Fn” is a function with which the token is imbued; “Fe” is a feature or usage the token has; “n” is a multiplier to account for the number of functions and/or features with which the token is imbued; and TN is the token’s nature. TN can then be used in a chosen formula for determining utilization or valuation or legal classification, among other things.

Third, once the legal classification is determined, the token’s legal and regulatory treatment should follow the traditional characterization whenever possible in order to maintain the principle of technology neutrality.

Fourth, the first three principles apply regardless of the technology used to tokenize the bundle of rights, item or thing, including whether the token is [classed as](#) “fungible” or “non-fungible” (NFT), or on an account-based or token-based system, or whether or not the network is [decentralized](#).

Here is a more detailed look at the categories set forth in [Figure 1](#). Note that the nature of the bundle of rights represented by the token may differ depending on the terms and conditions pursuant to which it has become tokenized because of the terms and conditions associated with it (including those set by a smart contract).

CATEGORY 1: PHYSICAL ASSET TOKENS - BRINGING TANGIBLES TO THE DIGITAL WORLD

Physical asset tokens represent real, tangible assets like gold coins, sneakers, or a cup of coffee. The legal and regulatory treatment is the same as the treatment today of the same physical item represented on an online shopping site and may depend on the specific physical item that is tokenized and the site’s terms and conditions. For example, if there are restrictions on the sale and transfer of firearms, those same restrictions would apply to the tokenized version of the firearm.

CATEGORY 2: SERVICES TOKENS - NEED A JOB DONE?

Services tokens stand for services like cleaning, attending musical performances, or even legal advice.

Tickets to a Beyoncé or Taylor Swift concert, a World Cup or World Series game, or the [Avalanche Summit](#) all fall within this category. Event ticketing platforms using blockchain seem to be gaining [popularity](#). When you buy a service token, you are reserving a service that someone will provide to you. If the activity was legal and unregulated before, like attending a musical performance, it should remain so when tokenized. Tokenized contracts of murder for hire, however, would of course remain unlawful.

CATEGORY 3: INTANGIBLE ASSET TOKENS - THINGS YOU VALUE BUT CANNOT TOUCH

Intangible asset tokens represent ideas and concepts we value but cannot touch, like loyalty points; bonds, stocks and other financial instruments; professional qualifications; and even identity.

An intangible item that is regulated a particular way in the paper-based or paper-replica systems is subject to the same regulation if it is tokenized: a tokenized security is still a security and continues to be regulated as such; tokenized intellectual property rights are still IP rights and continue to be regulated as such.

For this category, the assets are of the types traditionally recognized by the law and do not include the next category, called “native DLT tokens.”

CATEGORY 4: NATIVE DLT TOKENS - THE HEARTBEAT OF BLOCKCHAIN

Native DLT tokens are special tokens that are intrinsic to a blockchain.

Tokens in this category are native to a distributed ledger like a blockchain and, critically, do not fall into any of the above categories because they depend on the DLT for existence and purpose. They may have a variety of functions on the public blockchain they are entwined with, including resource allocation, means of payment, security incentive, voting rights. The inextricable link between the token and the protocol (they do not function without each other) is the hallmark that defines native DLT tokens.

CATEGORY 5: STABLECOINS - PROVIDING STABILITY WITH FIAT CURRENCIES

Stablecoins broadly defined are designed to maintain parity with a reference asset. While potentially a broad category that could encompass Categories 1-3, the classification system opts for a narrow definition that includes only those tokens that seek to maintain a peg to a fiat currency, making them handy for trading and payments. Some stablecoin structures might meet the definition of existing types of financial assets, such as money market mutual funds or bank deposits. When that is the case, those stablecoins should follow the traditional regulation. When the structure falls outside conventional forms, new regulation might be needed.

These sensible principles find further expression in the work of the Law Commission of England and Wales, an independent body with responsibility for the development of the law there. In the last few years, it has engaged in several [projects](#) related to digital assets (the Law Commission’s preferred terminology). Of most relevance to token classification is its [June 2023 report](#) on whether digital assets are a type of personal property, followed by its proposed [draft legislation](#) related to that point.

The June 2023 report concludes that digital assets might represent existing types of personal property, supporting the principles behind sensible token classification. Due to a quirk in English law, however, it is not always clear which of the denominated types of personal property a particular digital asset might represent, making determinations about ownership and transfer uncertain. The law of England and Wales recognizes “things in possession” and “things in action” as two types of personal property that can be represented by tokenization (“Things 1” and “Things 2”, with apologies to [Dr. Seuss](#)). But, according to the Law Commission, not all digital assets meet the definitions of Things 1 or Things 2, so the Law Commission recommended and proposed legislation to codify a third type of things (“Things 3”) as also personal property under law to resolve any ambiguity.

Things 3 cannot be physically possessed, like Things 1, and cannot be established through legal action as a matter of law, like Things 2. Because digital assets are wholly virtual, certain of them can fall within the Things 3 grouping, but it depends on the bundle of rights, item or thing that is represented, so they might also be either Things 1 or Things 2. The June 2023 report provides detailed discussions of the antecedents of its recommendation to explicitly recognize Things 3 as well as how Things 3 might be defined, all of which makes for a dense read into the personal property law of England and Wales.

The main takeaways for token classification are the recognition of tokenization as a process by which bundles of rights, items and things are digitally represented and that the functions and features of the digital asset determine its legal classification. This leap forward in digital technology requires clarification of the boundaries of Things 1, Things 2, and Things 3 under the law of England and Wales because of the different natures of different tokens. While not sensible token classification as outlined above, the parallels provide useful paradigms for understanding how the move from paper-based or paper-replica systems to tokenization can be approached on a technology neutral basis that nonetheless recognizes how the technology functions.

CONCLUSION

Most tokens represent things that already exist, and they can be regulated - or not regulated - in the exact same way: same asset equals same risk, which results in same regulation. The legal and regulatory treatment should become readily apparent upon an analysis of the functions and features of a particular token to establish its nature. There are many forms by which an asset can be represented. DLTs are just one of the newest. As the Law Commission's work shows us, there is no need to abandon sound principles when a new technology for representing things comes along.

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Length	3-4 print pages including footnotes
Target Audience for Submission	Broader business community aiming to better understand the technology and the legal issues associated with it
Content	All legal areas related to blockchain technology and digital assets
Structure	Introduction - Description of legal matter - Proposed solution - Conclusion/key takeaways
Writing Style	Not too academic; lucid and clear-cut language
What can I Submit?	Previously published work is welcome for submission to the IJBL

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