DIGITAL
LAW
ASSOCIATION

SUBMISSION

UK Law Commission – Digital Assets

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ABOUT THIS SUBMISSION

The Digital Law Association is an organisation dedicated to the promotion of a fairer, more inclusive, and democratic voice at the intersection of law and technology.

Our mission is to encourage leadership, innovation, and diversity in the areas of technology and law by:

- bringing together the brightest legal minds in the profession and in academia to collaborate; and
- developing a network that promotes digital law, and particularly female leaders in digital law.

This document was created by the Digital Law Association in consultation with its members. In particular, the compilation of this submission was led by:

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Submission Process

In developing this submission, our members have engaged through email correspondence and discussion groups relating to the issues related to the submission.

Approach

Our approach to this submission recognises and respects that the Law Commission's intent in respect of this inquiry has been to only focus on the private legal rights of Digital Assets and not to deal with their regulatory and public law aspects. Notwithstanding this, we use the opportunity of this submission to advocate for the UK law Commission to continue its work going forward to also focus on the regulatory and public law aspects of Digital Assets within its Digital Asset project. Our collective market insight is that this is work that needs immediate attention, this is where legal risk and opportunity for real world harms are most significant and this is where there is a great deal of legal uncertainty.

Summary of Recommendations

Recommendation #1	Consideration of the introduction of a new type of legal entity – DAO Limited (decentralised autonomous organisation).
Recommendation #2	Further review of legislative changes required to support the future of digital identity in the UK, where those changes recognise the value afforded by a digital identity system that uses technologies to balance security with individual consent and control - privacy enhancing technologies (PET).
Recommendation #3	To extent the Law Commission is not already tasked with a full regulatory review of how digital assets should be incorporated into the economy through existing or new legislative frameworks, the Law Commission (or other appropriate body – such as the UK Judicial Cross-Disciplinary Task Force on the Digital Economy) should have their remit extended to undertake this vital and comprehensive review. In addition to private law, this should include aspects of regulatory and public law (for example capital markets, consumer protection, anti-money laundering, tax, and laws governing regulation of securities and corporations).
Recommendation #4	Address the need for the United Kingdom to identify requirements for the public and private use of high integrity critical digital infrastructure (whether through legislation or otherwise) to address some of the practical implementation problems associated with reliance on critical Digital Assets (like digitised or smart legal contracts). This may include opening up new grant programs for the digitisation of the legal sector.

The Common Law Position

Question 1 - What would be the legal or practical implications for you if Digital Assets were possessable under the law of England and Wales?

Property rights regulate relations between people over resources. Property law is, thus, an historical record of the methods that societies have used to allocate resources between people, and to generate certainty in the control and transfer of resources in order to put them to productive use. The two most important aspects of property law are, therefore, the nature of the resource and the mechanisms of control.

The nature of the resource determines the rights that property law confers and the mechanism of allocation of the rights. Sometimes property laws are said to regulate "relations between people over things," with classic examples being land and physical objects. However, the reality has long been that any valuable resource will typically fall into the purview of property, and the tangibility or otherwise of the resource is not meaningful in property law. From the early medieval development of feudal estates and trusts, through the emergence of choses-in-action and riparian rights, to modern day conceptions of patents, trademarks, copyright and virtual property, property law has never concerned itself with physical tangibility. The only meaningful aspect of physical instantiation is that this brute fact determines the rules of allocation of the propertised resource: since non-rivalrous use is generally not possible for a physical object, property laws relating to these kinds of objects will necessarily have certain characteristics that seek to limit disputes over the exclusive use of the property. The law of adverse possession is a good example: in the interest of certainty and dispute settlement, it grants property rights over land (or, in some jurisdictions, objects) to someone who would otherwise be characterised as a trespasser but who nonetheless has maintained control over the property for such an extended period of time that the law grants them title to the property.

The important observation here is that the nature of the resource determines the mechanism of control, and that this mechanism of control over the resource defines the nature of the property right. For land, control includes excluding others—thus we have laws against trespass—and similarly for physical objects we have property rights ensuring that others cannot simply take the object. (Although for various historical and philosophical reasons these resource control rights are sometimes found in torts like conversion or crimes such as theft.) For modern intellectual property laws such as patents or copyrights, where the property in question is wholly virtual, the mechanism of control is the legislative/administrative grant of the monopoly or exclusive right, with a state-backed right of legal exclusion of others from the resource. Each of these property types have at their core the concept of control over the resource, even though the characteristics of the resources differ widely.

This focus on the nature of the resource and the mechanism of control provides the core tenets of the submission of the DLA. Notably, it explains why we have only addressed Question 1 and 12. Moreover it explains why, in our view, the framing of the enquiry in its current form is somewhat unhelpful. We wholly endorse the Commission's stated aims to

ensure certainty and encourage investment in Digital Assets; however the questions asked appear to only focus on property rules that meaningfully relate to certain (historically significant) property types and may not generate useful regulations for the broad category of Digital Assets as a resource. The questions asked assume that there are useful analogies to be drawn between Digital Assets and certain historical property types (notably land and objects). In our view, this approach is counterproductive, since it seeks to place Digital Assets into the procrustean bed of physical property types, and does not provide guidance as to the types of property rights that should apply to this new type of resource in order to generate socially productive uses from it.[1]

Questions that ask about possession *simpliciter* or ask about similarities between Digital Assets and choses-in-action are examples of how this type of analogy-making, while plausible on the surface, fails to address the fundamental property question for Digital Assets: how can we generate certainty in the control and transfer of this type of resource in order to put them to productive use? As for all property rights, the two issues are the nature of the resource and the mechanisms of control.

1. The nature of the resource

Even identifying what a Digital Assets is, is difficult. To date, most discussions around definitions have are the product of regulatory focus. This approach is insufficiently expansive to identify the legal, rather than merely functional, characteristics of Digital Assets. JG Allen rightly identifies that the

> *"…taxonomies of the new digital 'tokens' that have emerged often express some version of the trichotomy of 'payment', 'security' and 'utility' tokens. This approach looks attractive, at first blush, because it refers to the function of the token and brings certain tokens effectively under existing regulation. However these regulatory driven taxonomies fail to identify what is truly novel – and therefore legally challenging – about 'cryptoassets' from a private law perspective."*[2]

We propose that a single definition of digital asset is used. We consider the following concepts to be relevant to such definition:

> *A record that is either created, recorded and transmitted, or stored in a digital (or otherwise intangible) form by electronic magnetic or optical means (or by any other similar means) and is a digital representation of value.*
>
> *Digital Assets include anything that can be created and transmitted electronically, and have associated control, ownership*[3] *or use rights, and includes digitised assets that are a digital representation of any other type of asset and do not need a blockchain to be created or*

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[1] Recognising the novel approaches contained in the Digital Assets: Electronic Trade Documents consultation paper.

[2] Iris H-Y Chiu and Gudula Deipenbrock, 'Routledge Handbook of Financial Technology and Law' (2021) at page 312.

[3] Recognising that a key point of this submission is the complexity of ownership of digital assets within the traditional concept of property law.

maintained, as well as natively digital assets that are created, maintained, and can be used on a blockchain and interact with smart contracts.

2. The mechanism of control

We propose, at least in the foreseeable future that control provides a better starting point for thinking about how Digital Assets are held, rather than ownership.

Relevant discussions around data ownership versus data control and the focus in that area on control as the better approach are instructive in identifying some of the legal problems surrounding legal identification of proprietary rights in Digital Assets. Noting that Digital Assets like data evolve, are endlessly duplicable and are amorphous[4].

For this reason we extract now from the 2018 British Academy, Royal Society and techUK seminar on Data ownership, rights and controls[5].

> *"The concept of 'data ownership' seems to have quite a lot of intuitive power. 'Your data' seems to be a simple shorthand for data that is about you, and because we feel as though we understand how ownership works, this seems to be a helpful way to get purchase on ideas that are otherwise difficult to talk about. Motivations for talking about ownership include privacy protection, the desire to be able to use one's own data (both for individuals and organisations), and the idea of sharing in the benefits that others get from using data that might be about you as a person. It seems intuitively right that you should have control over 'your data', and that if it were used for financial (or even political) gain that you should be able to benefit…However, there are very significant problems with the concept of 'data ownership' that make it unsuitable for use in developing a vision for a system of data management that combats the growing sense of unease.* ***The idea of owning data is challenging because data is not like other goods that we can own. It is non-rivalrous – I can both give it to you and still have it myself without it costing me any of the original good. Other goods are not like this****. If my bag is stolen, I no longer have it. But, generally, if your data is stolen you still have it, but someone else has it too. If I sell my house to you, it is yours, it no longer belongs to me and I cannot sell it to someone else, but this is not always the case with data, be it personal data or data that is not about people at all.* ***In addition, data can be about multiple people, breaking the link between the idea of data that is 'about me' and data that I therefore 'own'****. …. The parallels to other forms of property are actually easier to see if the person understood to 'own' the data is someone who holds an aggregated data set about many people. For these reasons, there is a lack of legal basis, in common or civil law, for the idea of data ownership. Common and civil law lack a definition of 'data' and do not confer a special status on it. Only personal data is defined, non-personal data is not defined, and even with personal data there is no clarity whether it can be held or not, and the definition of 'personal data' is extremely broad.* ***It is also a dynamic concept****: what is today not personal data could be considered in the near future to be personal data if changes mean that it can be used to identify an individual. Technology evolves*

[4] Notwithstanding you can capture their status at a moment in time in certain systems, for example, distributed ledger technology systems.

[5] https://royalsociety.org/~/media/policy/projects/data-governance/data-ownership-rights-and-controls-October-2018.pdf

> *continuously and even machine-generated data could be considered, in some situations, as personal data. Anthropology considers ownership in relation to the social practice of exchange. It is primarily at the moment of exchange, when one person gives something to another person, that the very question of ownership is made visible. One of the things that is at stake in debates about data ownership might be not only data's (lack of) legal status as property, but also its social status as an artefact of exchange. Could some of the problems about what constitutes appropriate exchange in fact be what is at the heart, in some of the discussions, about data ownership?"*

The reason that distributed ledger technology (and/or blockchain technology) has been so successfully tied to the rise of Digital Assets, is that it provides us with a shared immutable record that facilitates identification of the who, what and where of control, including in the absence of a centralised custodian with legal personhood. That is not to say it is the final technological invention for supporting Digital Asset property rights, but in a world of increasing, replicable digital assets, distributed ledger technology is inordinately useful in both alienating and recording the alienating of rights.

Our recommendations in question 12 are associated with the provision of appropriate mechanisms of control to establish legal certainty in the holding of Digital Assets. They include, new legal structures, systems or processes, new opportunities for holistic review and oversight as well as the establishing of new infrastructure which may or may not rely on distributed ledger technology.

Other

Question 12 - We welcome suggestions as to other issues which arise in practice, or other areas of law which could be affected, and which should be included in the scope of our Digital Assets project.

Recommendation #1

Consideration of the introduction of a new type of legal entity – DAO Limited (decentralised autonomous organisation).

Intended outcomes

Appropriate corporate oversight and guidance for a new business model manifesting in the digital economy, particularly in respect of digital asset transactions.

Clarity and recognition as to the cross over between Digital Assets and DAOs and how their integration into existing regulatory regimes should be facilitated with an eye to both functions.

(For example, a constitution document set up as a smart legal contract could operate as both a DAO and a digital asset).

Reasons

Recognition of the ability for digital asset networks to decentralise control and operation among network participants, to an extent that inhibits the practical and logical application of regulations unless a new entity is recognised.

Make the United Kingdom an attractive destination for innovative financial products and services and other digital asset businesses.

Recognition of international movement in this space, with DAO's either being adopted or considered in other jurisdictions, for example see the COALA DAO Model law (which we do not endorse in its entirety but recognise to be an important part of the conversation) and on July 1, 2021, Wyoming became the first state in the United States of America to recognize DAOs as a legal entity.

Recommendation #2

Further review of legislative changes required to support the future of digital identity in the UK, where those changes recognise the value afforded by a digital identity system that uses technologies to balance security with individual consent and control - privacy enhancing technologies (PET).

Reasons

Natively digital assets do not currently have a clear legal regime that defines a person's rights[6]. Many natively digital assets could be said to be analogous to bearer assets in the sense that the person with access to the private key to sign transactions involving the natively digital asset would consider themselves the 'owner' of the natively digital asset. However, more than one person may have knowledge of the private key and bad actors may discover the private key that is associated with a public key address so exclusive 'ownership' or control cannot be guaranteed for a natively digital asset unlike a bearer asset where a person actually holds a bearer certificate and there is only one copy of the certificate. If a person's private keys are obtained by a bad actor without the person's knowledge it is extremely difficult for that person to prove their 'ownership' unless they have kept good and contemporaneous records of their 'ownership' and control of the digital assets associated with the wallet address.

Absent a legal register that documents a person's name to a public address associated with a natively digital asset, it is the proof of 'ownership' that is made difficult by the nature of natively digital assets, not the rights or uses of the digital assets. Therefore, a possibly appropriate mechanism of control is a digital identity solution that enshrines and protects privacy rights which is possible with the emergence of privacy enhancing technologies. For example, a person's public wallet address could be linked to an identifier address where that identifier address has gone through a process of 'zero knowledge Know Your Customer' so that the personal information is stored securely and to the extent of any wrong doing or suspected wrong doing, the personal information associated with the identifier address that links to the public address is verifiable and readily obtained to deliver a swift and certain proving of legal ownership and establish clear property rights over the natively digital assets.

Recommendation #3

To extent the Law Commission is not already tasked with a full regulatory review of how digital assets should be incorporated into the economy through existing or new legislative frameworks, the Law Commission (or other appropriate body – such as the UK Judicial Cross-Disciplinary Task Force on the Digital Economy) should have their remit extended to undertake this vital and comprehensive review. In addition to private law, this should include aspects of regulatory, and public law (for example capital markets, conflicts, consumer protection, anti-money laundering, tax, and laws governing regulation of securities and corporations).

Reasons

Digital Assets are a cross industry, cross sector consideration. The Government response to how they should be integrated into the entire UK economy should not be piecemeal, but done in a holistic way given the interdependencies and the need for uniform approach. See for example the approach recently adopted in Lichtenstein. Given the international footprint of Digital Assets this review should also cover issues of international law.

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[6] Much of the rationale for this recommendation relates to public, permissionless blockchains. The DLA recognises public permissionless blockchains as only one component of a holistic set of technological solutions.

Recommendation #4

Address the need for the United Kingdom to identify requirements for the public and private use of high integrity critical digital infrastructure (whether through legislation or otherwise) to address some of the practical implementation problems associated with reliance on critical Digital Assets (like digitised or smart legal contracts). See here for features identified as necessary for critical digital infrastructure[7]. This may include opening up new grant programs for the digitisation of the legal sector.

Reasons

We are seeing an increased dependency on digital assets (such as smart legal contracts). Wide scale use of digital assets by governments and the private sector will require appropriate digital infrastructure, and such infrastructure will assume a critical role in the functioning of the economy. Governments will need to consider what legislative measures are required to support the proper functioning of, access to and integration of such digital infrastructure into the fabric of the economy.

There are significant risks in failing to understand the public interest requirements of the digitisation of legal contracts and legal facilities including risks in respect of the performance and meeting of director and legal duties.

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[7] https://papers.ssrn.com/sol3/papers.cfm?abstract_id=3814811

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