

An overview of the UNIDROIT Project on Digital Assets and Private Law

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Digital Assets and Private Law: Outline

- Background, methodology, and current status
- Sec. I: Scope and Definitions
- Sec. II: Private International Law
- Sec. III: Control and Transfer
- Sec. IV: Custody
- Sec.V: Secured Transactions
- Sec.VI: Procedural Law Including Enforcement
- Sec.VII: Insolvency
- Next Steps and Future Work



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Background & Current Status

- 2015 – 2018 Proposals Received
- 2020-2022 Work Programme.
- Start of the Project in 2020
- Two Exploratory Workshops in 2020-2021
- Nine Working Group Sessions in 2020-2023
- 25 Drafting Committee Sessions in 2021-2023
- Intersessional work of Four Sub-Groups in 2021
- Establishment of the Steering Committee in 2021
- Four intersessional workshops
- Public consultation



Principles and
Commentary

Latest version at <https://www.unidroit.org/wp-content/uploads/2023/04/C.D.-102-6-Principles-on-Digital-Assets-and-Private-Law.pdf>



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Background & Current Status: Principles and Commentary

- **Principles** embodying **best practices** and **international standards**
- Legal issues arising out of the **holding, transfer and use of digital assets** across a variety of commercial use cases
- **Commentary on practical problems** involving digital assets and their use
- **Private law issues**
- An **iterative** and **functional approach**



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Introduction – Reasons for the Principles

These Principles are designed to **facilitate transactions in digital assets**. These are types of digital assets often used in commerce.

For transactions in these types of digital assets to have the **maximum efficiency**, it is important to have **clear rules that apply to the key aspects of these transactions**. Without predictable results, the transactions will have inherent inefficiencies and there will be greater costs and a reduction in the value of the transactions in commerce.

In sum, these Principles aim to reduce legal uncertainty which practitioners, judges, legislators, and market participants would otherwise face in the coming years in dealing with digital assets.

It is recommended to States to adopt legislation consistent with these Principles. This will have several benefits: it will increase the predictability of transactions involving these assets that occur in that State. In addition, as these transactions frequently involve persons in different States, the greater the consistency among States, the greater the predictability in cross-border transactions. The increased predictability should reduce the costs of these transactions, both in direct transaction costs and pricing.



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Introduction – Key points

- Technology and business model neutrality
- Jurisdiction neutrality
- Organisationally neutral
- They do not cover rules that are to be enforced by public authorities which in many jurisdictions would be called 'regulation' or 'regulatory law'.
- These Principles apply only to a subset of digital assets. These are digital assets that are frequently used in commerce. They are distinguished from other digital assets by identifying them as digital assets that are subject to control.



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Features of a digital asset



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Section I: Scope and Definitions

Principle I: Scope

These Principles deal with the private law relating to
digital assets.

Not covered: rules of private law relating to intellectual property or
consumer protection.



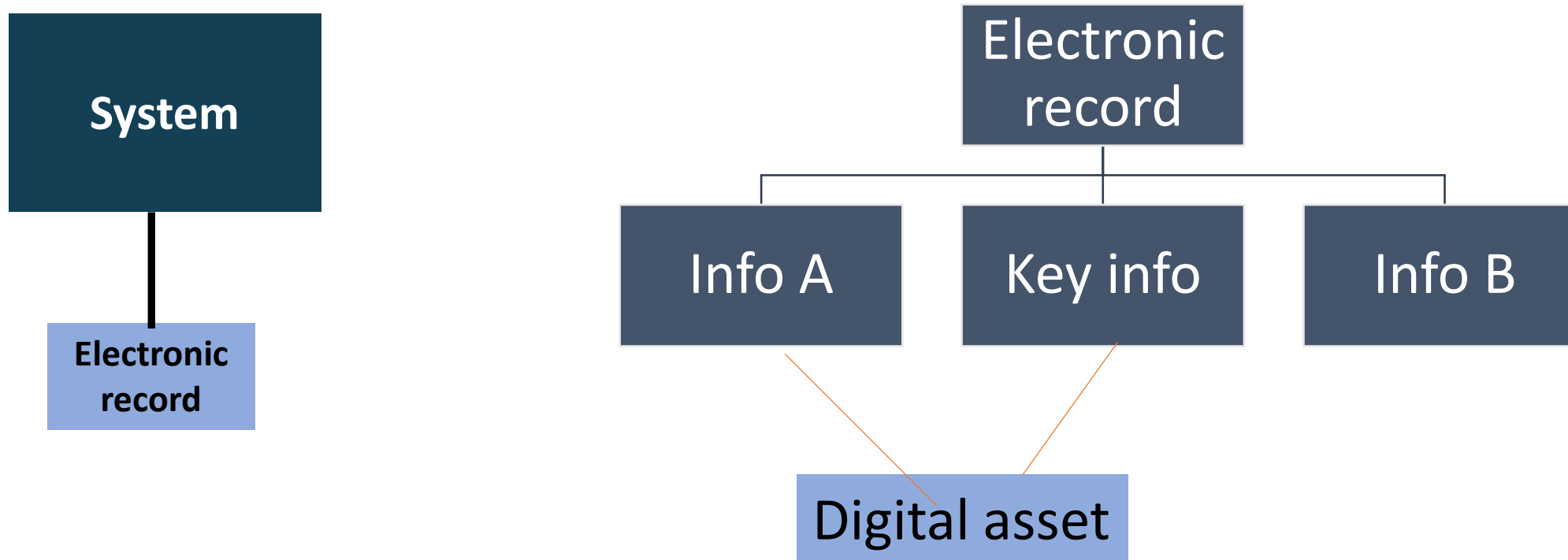
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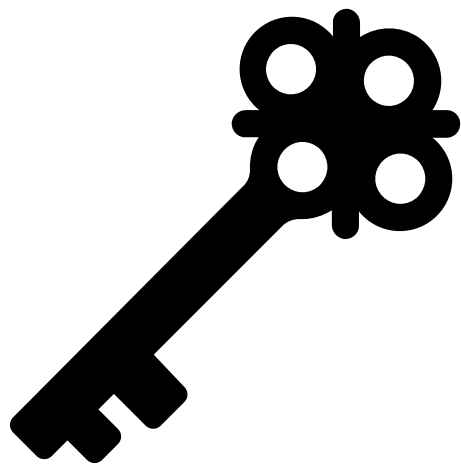
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Section I: Scope and Definitions

Principle 2: Definitions

(II) ‘Digital asset’ means an electronic record which is capable of being subject to control.





ONLY a person with specific means can change the system

- a person in control can 'transfer' the digital asset to the control of another person

ONLY such a person can change the system

- a person in control can prevent others 'transferring' the digital asset

Benefits of digital asset

- A person in control can obtain substantially all the benefit from the digital asset

Once the system is changed it cannot be changed in the same way again

- Once digital asset is transferred from A's control to B's control it cannot be transferred again by A (no 'double spend')



Bitcoin



Ethereum



Uniswap



Polkadot



Binance



Tether



XRP



Chainlink



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Section I: Scope and Definitions

Illustrations

Illustration 1: Virtual (crypto) currency on a public blockchain (e.g., bitcoin) is a digital asset.

Illustration 2: If a digital asset contains information that is a valuable dataset/database (e.g., a dataset that is the basis for the operation of an AI system), image, or textual expression, the information is subject to applicable intellectual property laws and the information existing outside of the digital asset is not part of the digital asset.

Illustration 3: A social media page with password for access is not a digital asset.

Illustration 4: Although an Excel or Word file with password protection could be a digital asset, the Principles law may have no material impact or utility for such assets.



Section I: Scope and Definitions

Principle 3: General principles (I-2)

- (1) Digital assets can be the subject of proprietary rights
- (2) Principles law takes precedence over other law to the extent that they conflict.



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Section I: Scope and Definitions

Principle 3: General principles (3)

- (3) Except as displaced by these Principles, other law applies to all issues, including
- (a) whether a person has a proprietary right in a digital asset;
 - (b) whether a proprietary right in a digital asset has been validly transferred to another person;
 - (c) whether a security right in a digital asset has been validly created;
 - (d) the rights as between a transferor and transferee of a digital asset;
 - (e) the rights as between a grantor of a security right in a digital asset and the relevant secured creditor;
 - (f) the legal consequences of third-party effectiveness of a transfer of digital assets;
 - (g) the requirements for, and legal consequences of, third party effectiveness of a security right in a digital asset.



Section I: Scope and Definitions

Principle 4: Linked Assets

The digital assets to which these Principles apply include a digital asset linked to another asset. The other asset may be tangible or intangible (including another digital asset). Other law applies to determine the existence of, requirements for, and legal effect of any link between the digital asset and the other asset, including the effect of a transfer of the digital asset on the other asset.



DA

L
i
n
k

Other
asset

- Existence, requirements for and legal effect of the link is a matter of other law
- Commentary gives examples and guidance
 - Electronic trade Documents
 - Tokenised securities



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Section I: Scope and Definitions

Principle 4: Linked Assets

Illustrations:

- 1: Digital assets linked to gold
- 2: Tokenised shares of a company
- 3: Tokenised title to goods
- 4: Stable coins
- 5: Tokenised real estate
- 6: Wrapped versions of digital assets



Section II: Private International Law

Principle 5: Applicable Law

1. Express specification in DA
2. Express specification in system
3. IF 'issuer', where issuer has statutory seat (restricted definition of 'issuer')
4. Those of the Principles or provisions of law of forum state as specified by that state (if any)
5. Law applicable by virtue of forum state's conflict of laws rules.

Limits

Proprietary issues

Issues covered by custody section governed by law specific in custody agreement (including whether it is a custody agreement)

Some carve-outs in relation to registration of security rights.



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Section III: Control

Principle 6: Definition of Control

(1) A person has ‘control’ of a digital asset if:

- (a) subject to paragraphs (2) and (3), the digital asset, or the relevant protocol or system, confers on that person:
 - (i) the exclusive ability to prevent others from obtaining substantially all of the benefit from the digital asset;
 - (ii) the ability to obtain substantially all of the benefit from the digital asset; and
 - (iii) the exclusive ability to transfer the abilities in subparagraphs (a)(i), (a)(ii) and (a)(iii) to another person; and
- (b) the digital asset, or the relevant protocols or system, allows that person to identify itself as having the abilities set out in paragraph (a).

(2) A ‘change of control’ means a transfer of the abilities in subparagraph (1)(a) to another person, and includes the replacement, modification, destruction, cancellation, or elimination of a digital asset, and the resulting and corresponding derivative creation of a new digital asset (a ‘resulting digital asset’) which is subject to the control of another person.

(3) An ability for the purposes of paragraph (1)(a) need not be exclusive if and to the extent that:

- (a) the digital asset, or the relevant protocol or system, limits the use of, or is programmed to make changes to the digital asset, including change or loss of control of the digital asset; or
- (b) the person in control has agreed, consented to, or acquiesced in sharing that ability with one or more other persons.



Section III: Control

Definition
of DA



DAs can be the
subject of
proprietary
rights

- Electronic record capable of being the subject of control
- Definition of control:
 - 3 factual abilities
 - Exclusivity

DAs can be the subject
of security rights and
proprietary rights in
DAs survive insolvency



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Section III: Control

Illustrations:

Illustration 1: Shared control and multi-sig arrangements.

Illustration 2: Transfer of control via PKI

Illustration 3: Transfer of control via OTP-Device



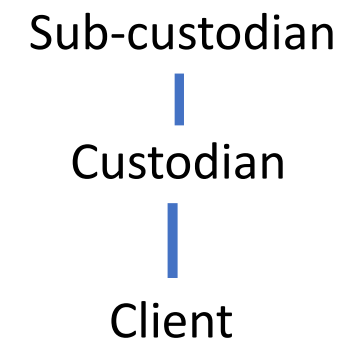
Principle 2(5)

- (5) In relation to a transfer of a digital asset:
- (a) ‘transfer’ of a digital asset means the change of a proprietary right in the digital asset from one person to another person;
 - (b) the term ‘transfer’ includes the acquisition of a proprietary right in a resulting digital asset;
 - (c) ‘transferor’ means a person that initiates a transfer, and ‘transferee’ means a person to which a proprietary right is transferred;
 - (d) the term ‘transfer’ includes the grant of a security right in favor of a secured creditor, and ‘transferee’ includes a secured creditor.



Section IV: Custody

- Functional definition
- DA ‘maintained’ by custodian for client is not available for custodian’s creditors on the custodian’s insolvency
- Custody agreement/agreement for delivery of DA
- An agreement is a custody agreement if the custodian obliged to ‘maintain’ DA for client UNLESS it made clear that the DA is available for custodian’s creditors on the custodian’s insolvency
- ‘Maintained’ : custodian has control of DA or sub-custodian had control of DA for custodian



Section IV: Custody

Core duties (mandatory)

- No transfer or use for custodian's own benefit except as permitted by client or other law
- Obligated to comply with client's instruction except if prohibited.
- Obligated to safeguard DA
- Can maintain DAs as an undivided pool unless prohibited
- Can use a sub-custodian

Duties a state could make mandatory

- Record-keeping of maintained DAs
- Maintaining DAs in accordance with records and to acquire assets promptly to do this if necessary
- Separate DAs maintained for client from those maintained for own account
- Duty to pass benefits from DAs to clients (subject to a right granted to custodian or another person)



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Insolvency of a custodian

- DA 'maintained' by custodian for client is not available for custodian's creditors on the custodian's insolvency
- Rights against sub-custodian in respect of DAs do not form part of custodian's assets available for custodian's creditors on the custodian's insolvency
- Reasonable steps to be taken by insolvency representative so client can obtain control of DA
- Similar provision if sub-custodian is insolvent.
- Pari passu distribution of assets maintained as an undivided pool.



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Section IV: Custody

Illustrations:

1: Where a person, such as an investor, controls a digital asset.

2: Self-Custody and/or Non-Custodial Third-Party Wallet

3: Where a business provides safeguarding of private keys

4: An agreement for a deposit account

5: A trading account



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Section V: Secured Transactions

Principle 14: Secured Transactions: General

- (1) Digital assets can be the subject of security rights.
- (2) If a digital asset is linked to another asset, other law applies to determine the legal effect on that other asset of the creation of a security right in that digital asset.
- (3) If a digital asset is linked to another asset, other law applies to determine the legal effect on that other asset of a security right in that digital asset being made effective against third parties.



Section VI: Secured Transactions

Principle 15: Control as a method of achieving third party effectiveness

Principle 16: Priority of security rights

Principle 17: Enforcement of security rights



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Section V: Secured Transactions

Illustration 1: In State A, which has not adopted the Principles, a secured creditor takes a non-possessory pledge over a portfolio of digital assets. The applicable law does not provide a specific mechanism to make a security right effective against third parties with respect to digital assets but provides that registration is the sole mechanism to achieve third-party effectiveness over any intangible assets provided as collateral. The secured creditor has required its borrower to transfer the relevant digital asset to a third-party wallet controlled by the secured creditor through a multi-signature arrangement but does not make a registration. Later, the borrower files for insolvency. The secured creditor could lose its security right as it was not made effective against third parties. On similar facts, in State B which has adopted the principles into its law, the secured creditor would have made its security right effective on the borrower’s insolvency by control.

Illustration 2: Digital assets are maintained by a custodian on behalf of a customer. The custodian undertakes to exercise the control abilities on behalf of the secured creditor . If the State has incorporated “control” as a method of third-party effectiveness in its secured transactions regime, the security right will be effective against third parties.



Section VI: Procedural law including enforcement

Principle 18: Procedural law including enforcement

Unless otherwise provided for in these Principles, other law applies in respect of procedural matters, including enforcement, relating to digital assets.



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Section VII: Insolvency

- (1) A proprietary right in a digital asset that has become effective against third parties under Principles law or other law is effective against the insolvency representative, creditors, and any other third party in an insolvency-related proceeding.
- (2) Paragraph (1) does not affect the application of any substantive or procedural rule of law applicable by virtue of an insolvency-related proceeding, such as any rule relating to:
 - (a) the ranking of categories of claims;
 - (b) the avoidance of a transaction as a preference or a transfer in fraud of creditors; or
 - (c) the enforcement of rights to an asset that is under the control or supervision of the insolvency representative.



Key takeaways

- **Your ability to control your digital asset is the key determiner of your proprietary rights in that asset.**
- **Whether your digital assets enables you to have rights in another on-chain or off-chain asset, the validity of such a right depends on applicable law.**
- **Should your service provider become insolvent, your proprietary rights should not be impacted, unless your agreement with you service provider was purely of a contractual nature.**

**Not your keys?
Not your money.**



#ProofOfKeys



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Existing and emerging standards

- UNCITRAL Model Law on Electronic Transferable Records
- UNIDROIT Principles on Private Law for Digital Assets
- Projects on warehouse receipts, negotiable multimodal transport documents, and factoring
- Hague Conference and applicable law questions

- ICC Rules for Bank Payment Obligations
- ELI Principles on Security Rights
- ALI-ELI Principles for a Data Economy
- Regulatory frameworks



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Future Work

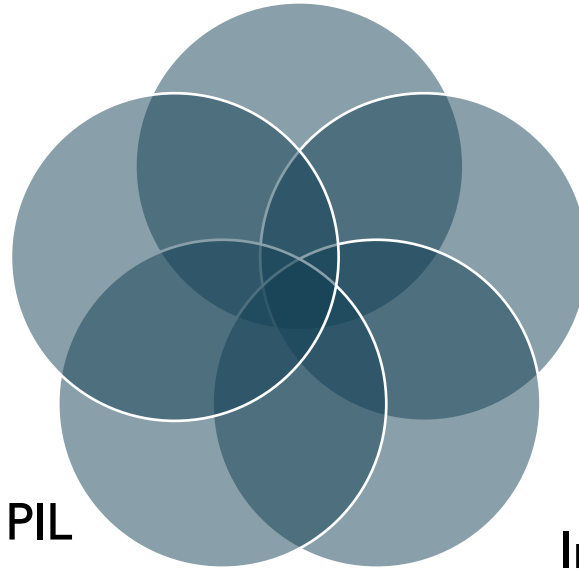
Publication to be prepared in
2023

Promotion and
implementation

Translation into
French

Joint Project on PIL
with HCCH

Industry outreach



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Thank you for your attention!
Any Questions?

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