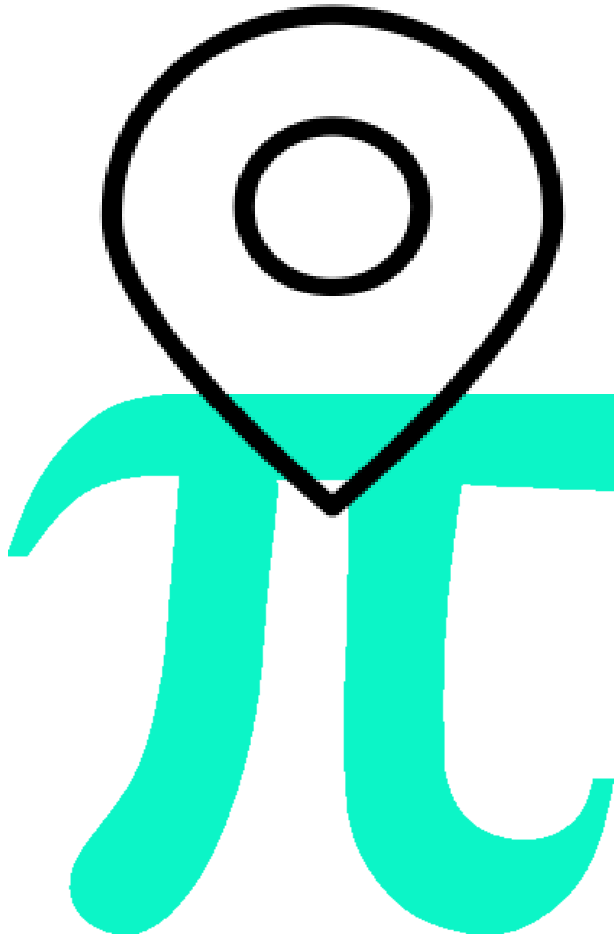




Starts Here

The Fundamentals of Entitlement Management

A Functional View



The Entitlement Management Model

- **Consider the Concept of an “Item of Value”** that is possessed / owned by an entity or individual by virtue of being the item’s creator or being legally acquired from another entity or individual.
- **The Item of Value** may be tangible or intangible. For instance, the tangible Item might be a physical object or goods such as an automobile or building. An intangible Item might be some form of intellectual property (IP) such as the master copy of a digital photograph, the master copy (digital or physical or otherwise) of a story or novel, or indeed the original design for an intangible or tangible item.
- **The Item of Value** may also have value to some other entity(ies) or individual(s) by virtue of its potential use or application in their own context.
- **The Owner of an Item of Value**, may grant rights to use their Item in some very specific and well-defined manner without the need to relinquish ownership of the Item. For instance, the automobile as a tangible Item may be rented to a 3rd party for specific uses as governed by the Rights, the building may also be rented or leased to a 3rd party in the same way. A 3rd party may also be granted specific rights to use an intangible Item, by being given access to the Item such as digital read access for use to the digital photograph, or the story or novel, or the design mentioned above.
- **The Rights Granted** to the 3rd parties then each become an Intangible Asset with an associated value for each Right(s) which the owner may have granted, usually in exchange for some asset of an equal value.

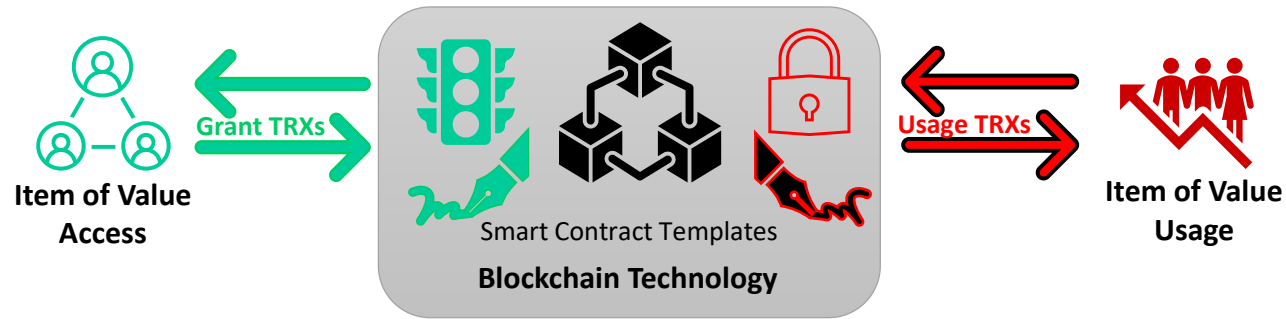
Thus, when a 3rd party is granted Rights to use an Item of Value, the 3rd party owns an “Entitlement to Use” the Item of Value, albeit ONLY under the terms of the Rights granted

The Blockchain Entitlement Patent Explained

Openthinka Foundational IP



The Blockchain Applied to Entitlement Management ^{“Curiosity Driven”}

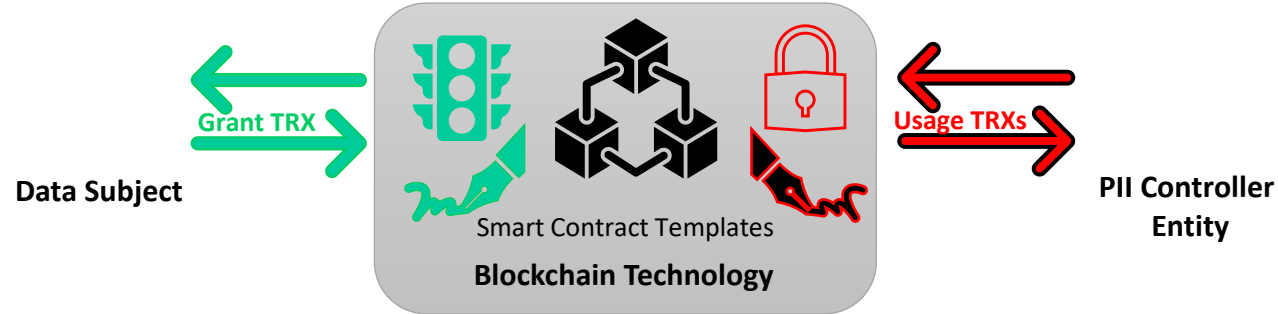


- **The Grantor / Grantee of Entitlement Relationship of Trust** – The opposing goals between the grantee(s) and grantor of entitlement for maximizing value from the acquisition and associated sale of rights to use an Item of Value can discourage trust between the parties.
- **Trust** – A Permissioned Blockchain provides three systematic capabilities that will help guarantee trust:
 - Secured shared access to the Entitlement and Usage information distributed between parties that wish to establish a relationship of trust.
 - With the use of cryptography, that shared data is immutable, i.e., cannot be deleted or altered other than by incrementally adding to the information.
 - Smart Contracts, also contained on the Blockchain, can be created by the Grantor of the Entitlement(s) that systematically manage Grantee execution of Blockchain Usage transactions that are created because of systematic integration with Usage of the Item of Value entitled. The Smart Contracts can be configured to match any legal agreement between Grantee and Grantor.
- **The Systematic Application of Blockchain Trust & Functionality to Entitlement Management**
 - Grantees and the Grantor can understand the 1:1 relationship between the transaction driven systematic execution of smart contracts and any commercial contract formed between the parties.
 - Grantees & Grantor can have real-time visibility into both Entitlement and Usage information, ensuring an open understanding and expectation of value to both.
 - The immutable transaction information of entitlement and usage data across time enables provision of secure audit information to the grantor and grantee(s) across time, even when entitlements or Items of Value are changed, exchanged or renewed, by virtue of the patented transaction “Container” capability built upon the Blockchain.
 - The patented data “Template” model that has been developed allows any form of Entitlement, containing any number or configurations of Rights to define Blockchain Smart Contracts suitable for Rights management of any Item of Value, both tangible and intangible.
 - The patented “Template” capability allows both the Grantor & Grantee(s) to add a new, renew or change the individual Rights contained within any Entitlement, at any time and subsequently, the feature Use available, at any time merely by updating the “template” that drives smart contract policies without requiring any material changes to the Blockchain based solution.



Providing Systematic Trust with Secure Entitlement & Usage Auditability for both the Grantor AND the Grantee of Entitlement of Rights Use an Item of Value

Blockchain Entitlement Management Applied to Privacy ^{“Curiosity Driven”}



- **A Data Subject is defined as an identifiable natural Person** – Data Subject refers to any individual person who can be identified, directly or indirectly, via an identifier such as a name, an ID number, location data, or via factors specific to the person’s physical, physiological, genetic, mental, economic, cultural or social identity. In other words, a data subject is an end user whose personal data can be collected.
- **The Item of Value** in this Use Case is **Personal Identifiable Information (PII)** - PII is any representation of information that permits the identity of an individual to whom the information applies to be reasonably inferred by either direct or indirect means.
- **The Grantor** in this Use Case - A **Data Subject** (individual) owns the rights to their PII, which includes the right of access, the right to rectification, the right to erasure, the right to restrict processing, the right to data portability, the right to object and the right not to be subject to a decision based solely on automated processing. These “Rights” are an **Item of Value** and may be likened to the rights to access a “Property” (or “Product”) owned by the Data Subject. Accordingly, a Data Subject may grant access, via an entitlement to an Entity (either Business or Private), to one or more rights to access their PII under the terms of a predefined agreement.
- **The Grantee** in this Use Case – Is the PII Controlling Entity that is requesting access to the PII for whatever reason.
- **The Predefined Agreement** – In this use case will be defined by the Entity and must be clearly defined to the Data Subject and formally accepted prior to Granting Entitlement to Use of the PII to the Entity. This could include Rights including time-period of Entitlement, attributes granted access, any changes to PII as requested by the **Data Subject**, all metrics associated with Usage, etc.. The Predefined Agreement must be implemented as a Smart Contract which systematically governs the management of the Entity’s Usage of PII, including the method of Use and defined location of storage.
- **Associated Local and Global Regulation of PII** will be included as a component of the predefined agreement (subsequently implemented in the appropriate Smart Contracts) including agreement on changes to the agreement because of changes in regulation at any time.

Providing Systematic Trust with Secure Entitlement & Usage Auditability for both the Grantor AND the Grantee of Entitlement of Rights to Use a Data Subject’s PII

dwright@openthinka.com