



History of Rights Expression

Rights Expression Languages (REL) - Circa 2000

XrML (ContentGuard)

ODRL Initiative (Open group)

Standardisation

MPEG-21 (Part 5/6)

IEEE/IMS Learning Content

OASIS

eBook Forum

OMA

Editeur ONIX Books

PRISM

PLUS Photo

Creative Commons (ccREL)

Patent Wars

MPEG Licensing Authority

Content Management License Administrator (OMA)

REL Patent: http://www.indicare.org/tiki-read_article.php?articleId=90





Open Digital Rights Language

W3C Permissions & Obligation Expression (POE) Working Group https://www.w3.org/2016/poe/

Defines a semantic data model for expressing permissions and obligations statements for digital content, and to define the technical elements to make it deployable across browsers and content systems

Working Drafts

ODRL Information Model

ODRL Vocabulary and Expression XML, JSON, RDF/OWL Ontology



New Use Cases

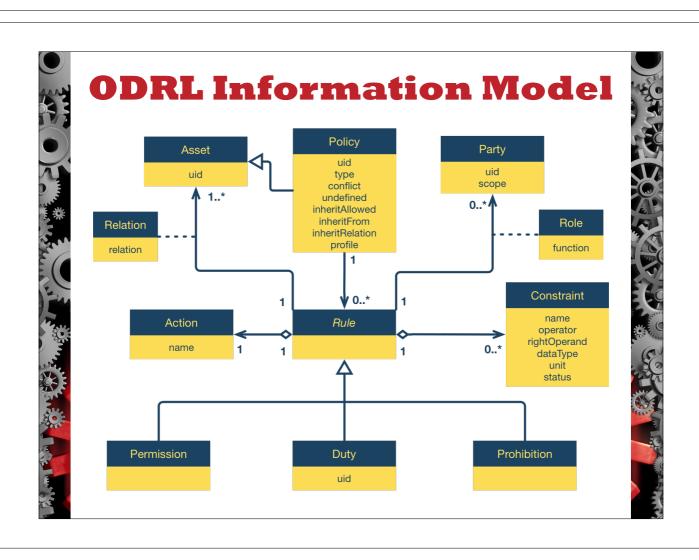
Rights Bundles, Complex Relations, Assets Complitations...

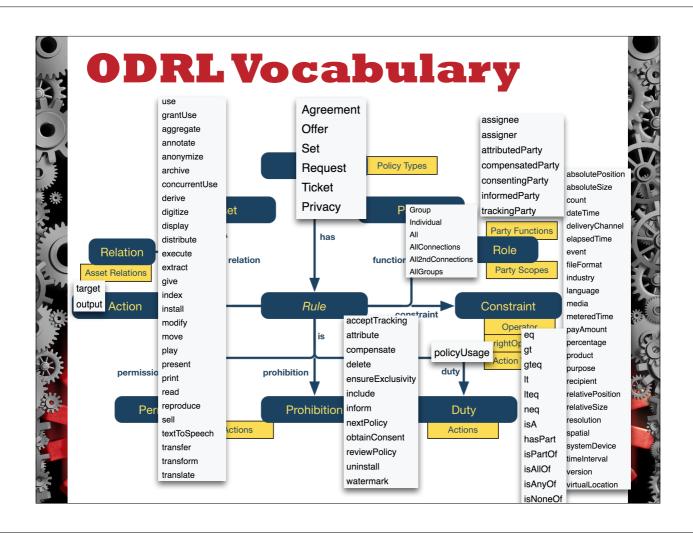


ODRL targeted as a standard contract expression language

Not enforcement









Current DRM Market

Microsoft PlayReady

Google Widevine Modular

OMA

Adobe Primetime

Marlin

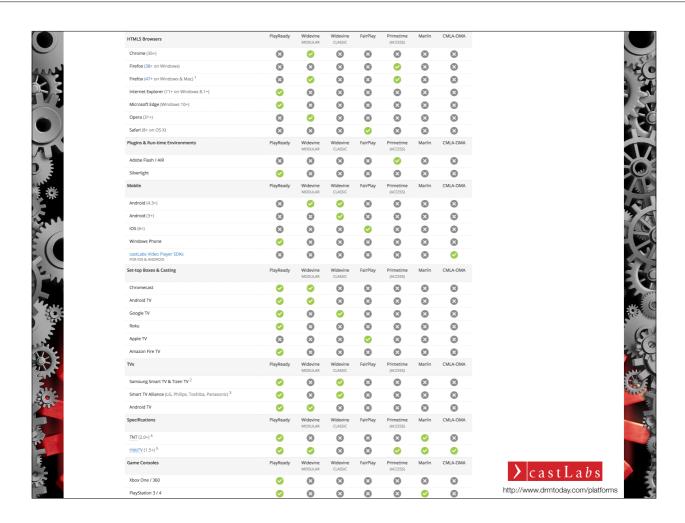
Apple FairPlay

Did the big deals with Music companies

They owned the eco-system

All Proprietary







W3C HTML5 EME

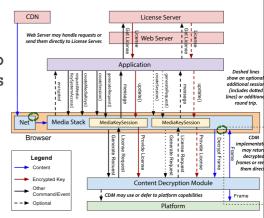
Encrypted Media Extensions

W3C Candidate Recommendation http://www.w3.org/TR/encrypted-media/

A JavaScript API that provides a method to interact with Content Decryption Modules for utilising DRM in web browsers

Enables encrypted video playback directly in HTML5 using the <video> tag without the need for additional third party plugins (eg Silverlight, Flash)

EME allows the same encrypted videos to be played in any compliant browser regardless of the DRM system used









The BlockChain

The BlockChain is a "Distributed Ledger"

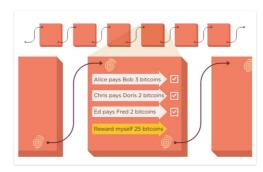
Each block has

Header includes some technical information about the block, a reference to the previous block, and a fingerprint (hash) of the data in this block

The contents of the block, for example the transactions

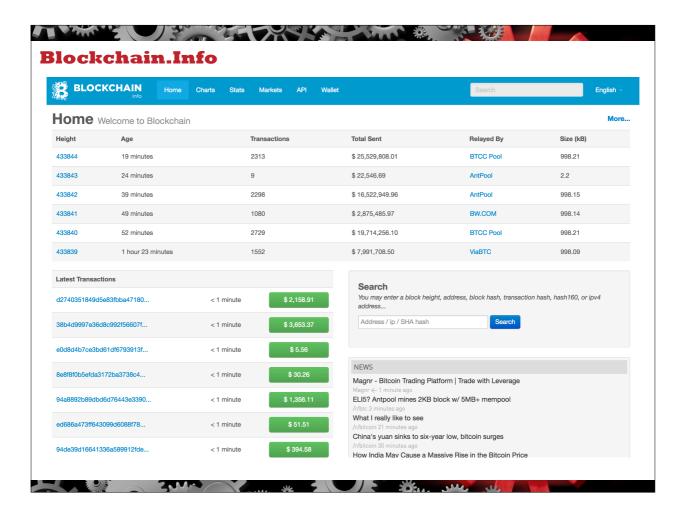
If the fingerprints are consistent with the data, and the fingerprints join up in a chain, then you can be sure that the blockchain is internally consistent

The Blockchain is immutable (can not be changed) - only added to



https://bitsonblocks.net/2015/09/09/a-gentle-introduction-to-blockchain-technology/







BlockChain Uses

Verification

Licenses, proofs of records, transactions, processes, or events. Did this event take place? Was this service performed on this piece of equipment? Does this person have the right permit?

Movement of Assets

Supply Chain Transparency Enabling direct Transferring money from one person payments, once a work condition

Ownerships

nd any type of real estate ownership. The Land registries, blockchain is a pe per of the chain of custody for any physical asset.

Identities

Government, cities should issue blockchain e-identities to its citizens, enabling them to securely use services like voting. An e-identity could become similar to a passport, allowing its holder access to a variety of services and rights.

Source: https://extranewsfeed.com (William Mougayar) 2016



BlockChain+Music

Back-of-house Music Industry is complex & antiquated

Rightsholders, Intermediaries, Royalties, Collection Orgs, Licensing...

System delivers value for owners of the process by which they transact

Record Company Record

Problem-The Royalty Payment Ecosystem

http://www.musicrow.com/wp-content/uploads/ 2010/08/musicreportsroyaltydiagram.jpg

Blockchain can provide transparency and immediacy on all transactions (and efficiency)

New Music companies using BlockChain



Startup raises \$2.5 million to manage music rights using blockchain









Music Disruption

BACKSTREET BOYS SUE FORMER

MANAGER - AGAIN

SUIT MAKES A NUMBER OF CLAIMS AGAINST LOU PEARLMAN.



JENNIFER VINEYARD 11/01/2005

The battle of Backstreet still isn't over: A new round has begun with the group filing another lawsuit against Lou Pearlman, the manager/ Svengali who created them.

\equiv Forbes

How Blockchain Startups Are Disrupting The \$15 Billion Music Industry

66 Shouldn't it be possible in a digital world for the royalties to come directly to you, instead of through a slow, inefficient, and opaque chain of collection societies and publishing administrators?

http://www.forbes.com/sites/jonathanchester/2016/09/16/how-blockchain-startups-are-disrupting-the-15-billion-music-industry. The properties of the propert



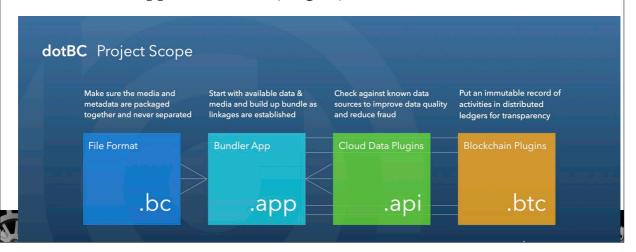
Dot Blockchain Music Project

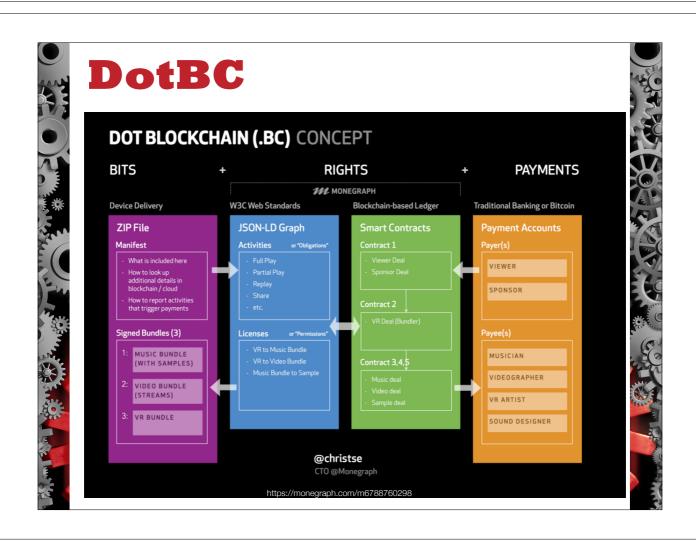
New music codec containing a Minimum Viable Data Set that would create a globally distributed database of music rights

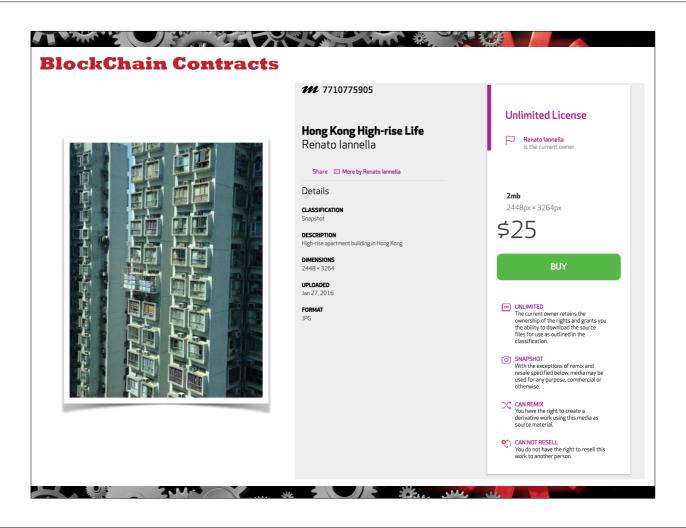


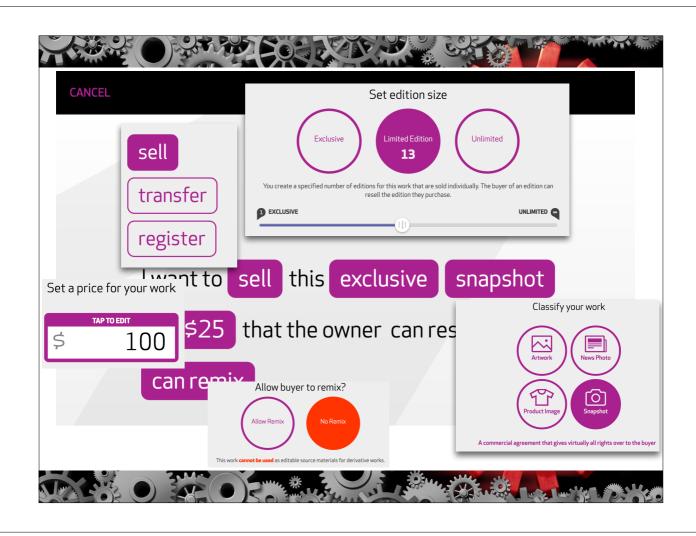
http://dotblockchainmusic.com

Codec is a wrapper: Metadata (+rights) + Media









BlockChain Contracts

Activity History



JAN 27, 2016

OWNERSHIP TITLE CREATED

Renato lannella is the original owner of the work titled "Hong Kong High-rise Life".



14HsTjWoKAknBEaVotC4NFLDBbGFft4Use

Digital Fingerprint



This particular document represents a CONTRACT DOCUMENT. This document is registered with the Bitcoin address: (3) 14HsTjWoKAknBEaVotC4NFLDBbGFft4Use.



BlockChain Contrac

This contract grants the following rights:

(right assigner's Bitcoin address → right recipient's Bitcoin address)

The right to amend the title.

rightbase \rightarrow 17dbMQtedPwNZxUBafnDbSQ9tgFYDqJUXJ

Transfer Sublicense

The right to transfer the "Sublicense" right to another entity. rightbase → 🔞 1FA5xheJuFKtR7Yb2SCjCSSNscfjZLL2eT

The right to transfer the "Remix" right to another entity.

rightbase → 🚯 166tSzoFxAX42NVy9SwsZnK2Hq9ymQafmJ

You have the right to create a derivative work using this media as source material. rightbase \rightarrow B 12gDXa6roYq5tY78smSo3jY4BxwQLEnUtp

You can sell this work to another person, transferring all relevant rights to them. rightbase \rightarrow 1G1R23EBYjszrwxtGpTFHeKwkZ4NNYTdLn

The right to use a work based on the classification of the work. rightbase → B 1CQ54YwbYBd4B6bX8SimcBu8CC9dVSeNNQ

The title of the work.

rightbase → ₿ 15R1GJsoLBPFcLxvVoNtsSopA48h39eYHE

The right to sublicense the work.

rightbase \rightarrow B 1NbhNCoqVjTHHSKfb6Ai7KkkpkmmTq3YXi



In the context of blockchains and cryptocurrencies, smart contracts are:

Pre-written logic (computer code)

Stored and replicated on a distributed storage platform

Executed/run by a network of computers

Can result in ledger updates (eg payments, etc)

They are small programs that execute on specific events

Blockchains

Distributed trustworthy storage

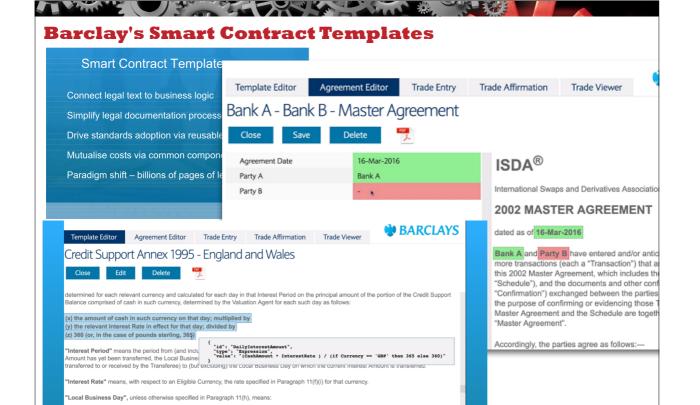
Smart contract

Distributed trustworthy calculations

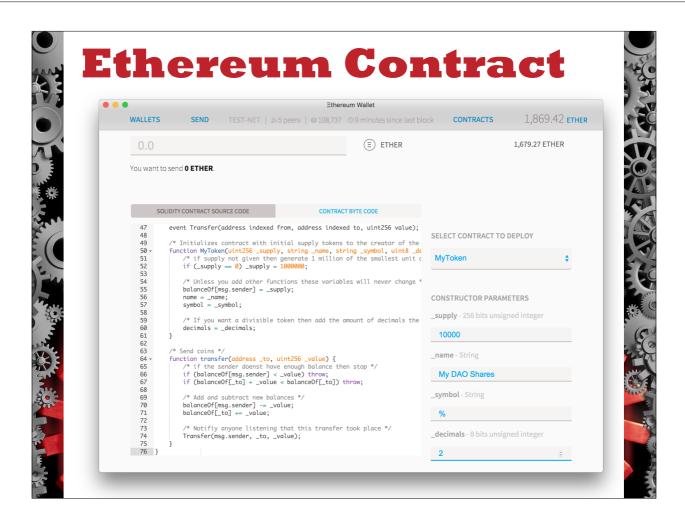
CONTRACT

1 <contract>
2
3
4
5
6
7
...
19
20 </contract>

https://bitsonblocks.net/2016/02/01/a-gentle-introduction-to-smart-contracts/



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Blockchain 'smart contracts' to disrupt lawyers

Commercial lawyers are watching the arrival of Ethereum closely given the potential for smart contracts in the future to disintermediate their highly lucrative role in drafting and exchanging paper contracts. Smart contracts are currently being used to digitise business rules, but may soon move to codify legal agreements.

> "Now is the time for agreements to be transferred to digital era," he says. "What the internet has done for information, blockchain will do for value. It will remove the friction and frustration in the current system of networks and build a new trust system."





BloombergView

Blockchain Company's Smart Contracts Were

Dumb

We talked this morning about a hack at the DAO, the Distributed Autonomous Organization that lives on the Ethereum blockchain and

By Matt Levine

■ 44 June 17 The descriptions didn't matter; only the code did. The descriptions didn't allow for today's hack, but the code did. (By definition! If the code could be hacked, the code allowed for the hack.) Any vulnerabilities in the DAO's code were not flaws in the code; they were flaws in the *descriptions* -- which were purely for entertainment purposes. The DAO's websites failed to explain to investors that the code allowed a hacker to take \$60 million by using a "recursive splitting function." But the recursive splitting function itself is part of the DAO's code, and therefore part of the DAO. Using it isn't a "hack," and using it to take money isn't a "theft"; it is just using the DAO as may modify of intended. Where the only measure of intent is what is allowed by the beyond those l'immutable, unstoppable, and irrefutable code.

The terms of T code existing of 0xbb9bc244d7 explanation of

terms or descriptions are merely offered for educational purposes and do not supercede or modify the express terms of The DAO's







Smart Contract - Computational

eg Payments

ODRL Contract - Logical

Policy Semantics



