

# Smart Content Block

MIT/law Open Project



# Project Team

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# Identifying and Exploring the Ethereum Blockchain

Example:

<http://etherscan.io/block/890199>

Where is the entire Blockchain? How can it be maintained and accessible as a basic infrastructure service such that any person or organization could inspect, explore, validate and integrate the contents into their own content and processes?



# Conceptual Architecture for **Smart Content Blocks**

Working Version for Innovations (soon to be for content blocks):

**Registry:** (approx line 18)

[https://github.com/OpenInnovationNetwork/Projects/blob/gh-pages/js/projects\\_retrieval.js](https://github.com/OpenInnovationNetwork/Projects/blob/gh-pages/js/projects_retrieval.js)

**Display:**

<http://openinnovationnetwork.github.io/Projects/>



# Distributed Contract Clause Bank

Publicly verifiable provenance of each part of documents/contracts.

- Know the source, track usage, model performance/dispute
- Therefore, choice of clauses and combinations of clauses can be optimized for various objectives (price, speed of deal, low risk, etc)

Example:

\* <https://github.com/UMKC-Law/DataSharingAgreement/wiki/August-28,-2015>

\* <https://github.com/UMKC-Law/DataSharingAgreement/tree/master/ClauseBank>



# Clauses and Templates in Context of Processes

The “Smartness” is in combining the legal clauses/templates (contracts, loans, licenses, other legal instruments) into a holistic fabric of the business processes they are a part of. Including the:

- Workflows
- Approval Chains
- Production Lines



# Artifacts

**Presentation** @May of Demo and Concept and Vision of Potential Via Blockchain

*Feedback Session at MIT for Validating/Modifying the Concept*

*Special Demo/Discussion Session at MIT for Lead up to the May MIT/law Event.*

**Models**, Flows and Other Diagrams of This Approach:

- Participants/Users
- Organizations
- [Also, perhaps: Bigger Systems of Use (See info flow across industry for optimizing transaction flow, “idea flow”, stable markets, etc)]

**Document Model/Data Model/Schema** of Some Sort.

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**Working Implementation** sufficient for a Proof of Concept.



# Useful Prior Work:

Dynamic Trust Framework (package mgmt & card-based approach)

- <https://github.com/mitreid-connect/trust-framework/tree/master/df-webapp/screenshots>

**Legal Components** (encapsulation of clauses and other stuff in reusable chunks)

- <http://legalmarkup.github.io/LegalMaterialDesign/>
- <http://v4-alpha.getbootstrap.com/components/card/>

OpenInnovationNetwork distributed, collaborative VCS content chunks

- <http://openinnovationnetwork.github.io/Projects/>
  - <https://github.com/OpenInnovationNetwork/Projects>

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# Prior Helpful (hopefully) Concepts

Business, Legal and Technical Clustering of Everything

- <https://github.com/mitreid-connect/trust-framework/blob/master/TrustFramework.md>:
- <http://idfederation.org/wp-content/uploads/2014/05/Final-Trust-Framework-20140429-web.pdf>

Method to achieve B/L/T is:

- Align Each Part, Harmonize & Integration of B/L/T into one system



# Depiction of Distributed Cards Using Open Web

## SmartContentBlocks

Created cards for the iAuth project, so that each legal clause and authorization by the user is encapsulated visually, and manageable as data. This makes the data a legal component that individual users can understand and work with.

Project: <https://github.com/LegalComponents/iAuth>

Demo: <http://law.mit.edu/iauth-project>

## Hotel Placeholder

Project Blurb coming soon!

People: Gabi,Dazzal

Project: [URL coming Soon](#)

Demo: <http://civics.com/hotel>

## Lottery\_Sharing

Sharing Lottery Tickets

## CSS Cards for iAuth

Created cards for the iAuth project, so that each legal clause and authorization by the user is encapsulated visually, and manageable as data. This makes the data a legal component that individual users can understand and work with.

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Demo: <http://law.mit.edu/iauth-project>

## Poison\_Pills

Triggering events that automatically kill a deal

## FirstToDisclose

Repository of inventions that may be shared with the world and not patented

Project: [www.firsttodisclose.org](http://www.firsttodisclose.org)

## BlockChain Default Swaps

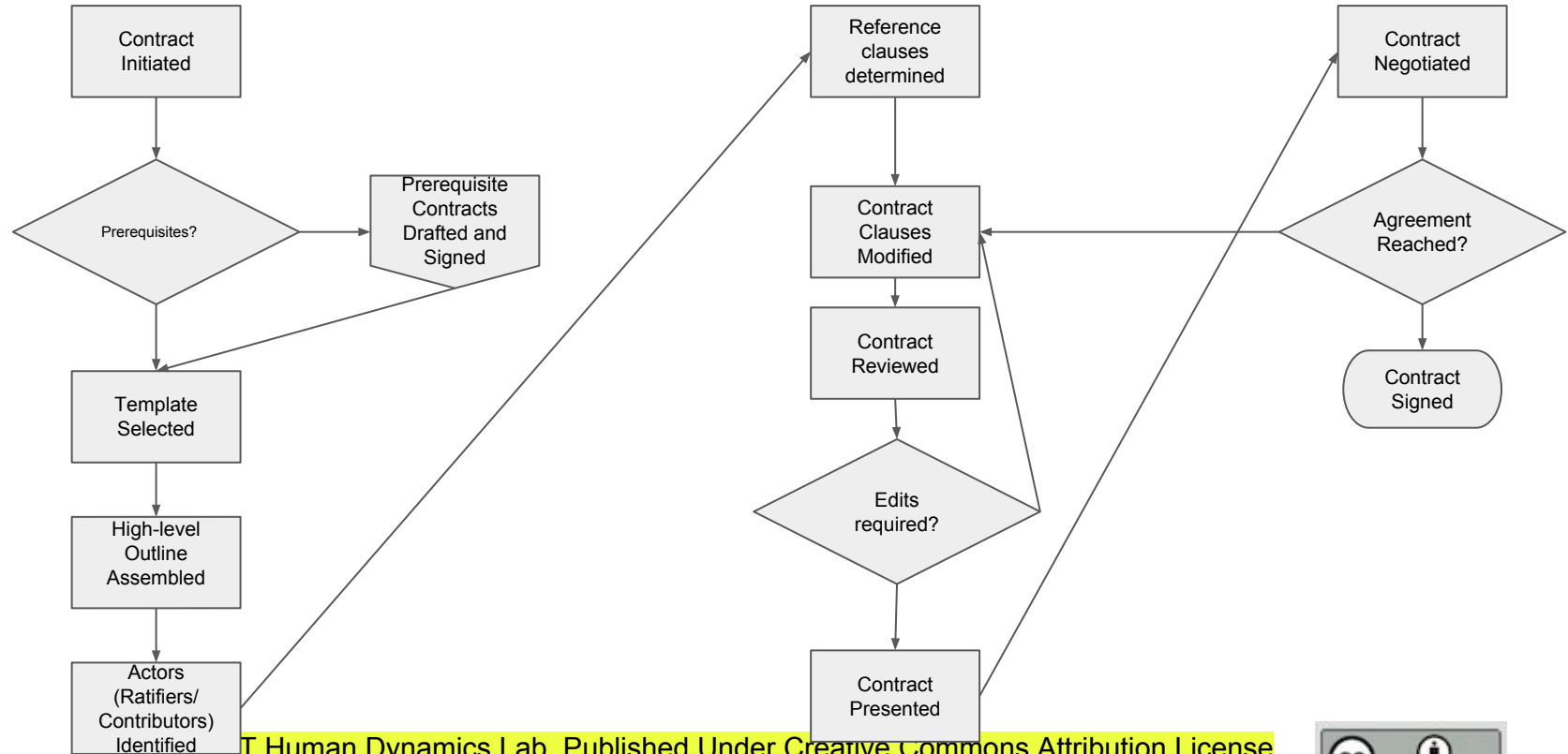
Using Blockchain to create foolproof credit default swaps with stops and mechanism to protect against market failure

## Deal\_Insurance

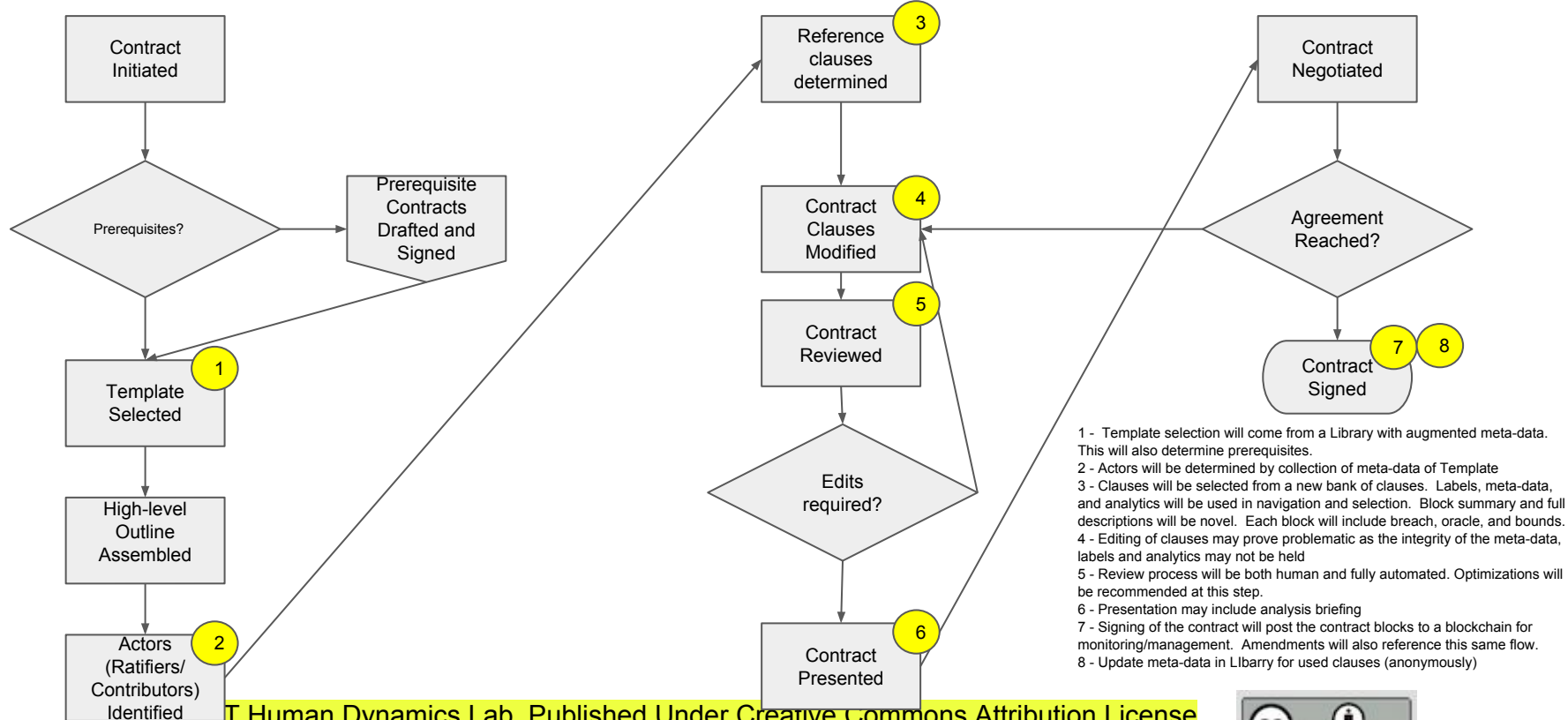
Provide Insurance for Blockchain deals



# As-is Contract Creation Process Flow:



# To-be Contract Creation Process Flow:



# Data Model

## SCB

SCBID  
Title  
SCBTypeID  
SCBLegalNameID  
SCBBusinessNameID  
BriefDescription  
FullDescription  
Input  
Output  
BreachRemedy\*  
ArbitrationTypeID  
OracleID

## SCBLabel

SCBLabelID  
SCBID  
LabelTypeID  
LabelTaxonomyID

## Attachment

AttachmentID  
Title  
Description

## RelatedSCB

RelatedSCBID  
ParentSCBID  
SCBID  
RelationshipTypeID  
blnRequired  
blnRecommended

## SCBAalytics

SCBAalyticsID  
SCBID  
SCBAalyticsTypeID  
Description

Missing: Prerequisite Full  
Contracts (for example: NDA),

# Data Model

Contract
ContractID Title BriefDescription StateCode StateReason ContractHash

ContractSCB
ContractSCBID ContractID SCBID Sequence ContractSCBHash

Attachment
AttachmentID Title Description



ContractSigner
ContractSignerID ContractID SignerID SignatureTypeID Sequence

SCBAnalytics
SCBAnalyticsID SCBID SCBAnalyticsTypeID Description

Missing: Hash storage of consumption; Revision mgmt of SCBs (edits change the library element); Loading future litigation results



# SCE Analytics

- SCE Analytics requires accessible SCE data - including past usage, litigation, success, but not attributable back to a single contract (anonymity needed)
- Blockchain sure would be a good avenue for this...
- 

