



LMSS and Its Evolution

LMSS = Legal Matter Specification Standard

Taxonomy / Ontology of Legal Work

Data Extraction → Analytic Insights

External Resource: Matter Fit

“Which providers have experience in **AREA_OF_LAW**?”

“Which providers have obtained **RESULT**?”

“Providers’ cost to draft **DOCUMENT**?”

“Clients’ cost for **DOCUMENT**? In **JURISDICTION_X**?”

“Risk of **LITIGATION_TYPE** in **JURISDICTION_X**?”

Analytics + Business Development

“We’ve done **NUMBER** matters in **AREA_OF_LAW**.”

“Of those, **NUMBER** were in **JURISDICTION**.”

“We achieved **RESULT** in **NUMBER**.”

“Competitors **also** doing **AREA_OF_LAW**?”

“Competitors that **CLIENT** also hires?”



Applications

E-billing

Research

Ediscovery

Legal Project Mgmt

Legal Work = Data Exhaust (to Extract)

Matter Metadata

Documents

Matters

All Open Pending Closed

Actions	Matter
Edit	00217-Smith: GR - Representation
Edit	00366-Freshfields: <u>Shoplifting</u> CRIM D-CCR
Edit	00367-Booth: <u>Divorce</u>
Edit	00368-Ashwood: <u>Contract Matter</u>
Edit	00369-Jones: <u>Property Dispute</u>
Edit	00370-Booth: <u>Dissolution of Marriage</u>
Edit	00372-John: chhj
Edit	00373-McPherson: McPherson vs State of Washington

Execution Copy

TABLE OF CONTENTS (TO BE UPDATED)

Article	Section	Page
Article I	THE MERGER	1
1.1	The Merger	1
1.2	Effective Time	2
1.3	Effects of the Merger	2
1.4	Consent of Stockholders	2
1.5	Stock Options and Warrants	3
1.6	Unaffiliated Directors and Officers	5
1.7	Directors and Officers	5
Article II	DELIVERY OF MERGER CONSIDERATION	6
2.1	Exchange Agent	6
2.2	Consideration	6
2.3	Delivery of Merger Consideration	6
Article III	ASSURANCES AND WARRANTIES OF COMPANY	8
3.1	Corporate Organization	8
3.2	Authority, No Violation	10
3.3	Authority, No Violation	10
3.4	Compliance with Applicable Law	12
3.5	Reports, Regulatory Filings	12
3.6	Broker's Fees	12
3.7	Broker's Fees	12
3.8	General Advice Effect	13
3.9	Compliance with Applicable Law	14
3.10	State Securities Laws	14
3.11	Broker-Dealer and Investment Advisory Matters	14
3.12	Options	15
3.13	Options	15
3.14	Company Information	15
Article IV	REPRESENTATIONS AND WARRANTIES OF PARENT	16
4.1	Corporate Organization	16
4.2	Authority, No Violation	16
4.3	Authority, No Violation	16
4.4	Compliance with Applicable Law	17
4.5	Reports, Regulatory Filings	17
4.6	Broker's Fees	18
4.7	Broker's Fees	18
4.8	General Advice Effect	18
4.9	Compliance with Applicable Law	18
4.10	Company Information	18

Timekeeping + Legal Project Management

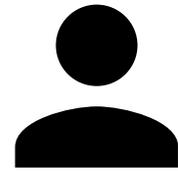
Smith file #	1.7	Reviewed <u>depositions</u> , <u>contracts</u> , <u>affidavits</u> , and other file materials in preparation for drafting Narrative <u>Statement of Undisputed Facts</u>
SALI D-CCI		Prepared Narrative Statement of <u>Undisputed Facts</u> for <u>summary judgment brief</u> with supporting citations to the record
SALI INTP-PATE		Compiled relevant legal research, cases and opinions in preparation for drafting Legal Argument and Conclusions section of <u>summary judgment brief</u>
	2.4	Prepared <u>Legal Argument</u> and <u>Conclusions of Law</u> section of summary judgment brief

“Show me all the...”

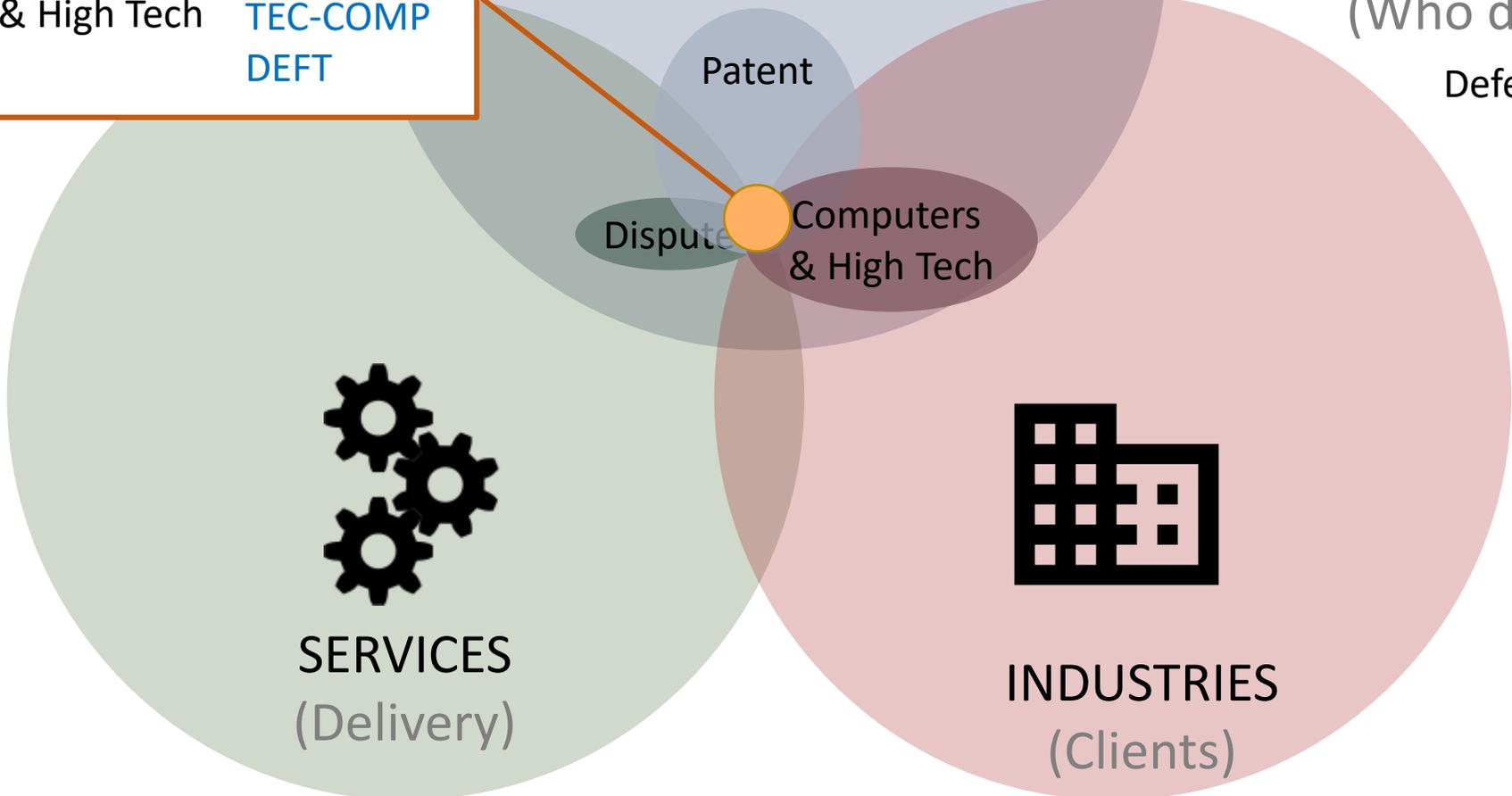


	Patent	INTP-PATE
	Dispute	D
	Computers & High Tech	TEC-COMP
	Defendant	DEFT

AREAS OF LAW
(Lawyers + Providers)



ACTOR/PLAYER
(Who does what)
Defendant

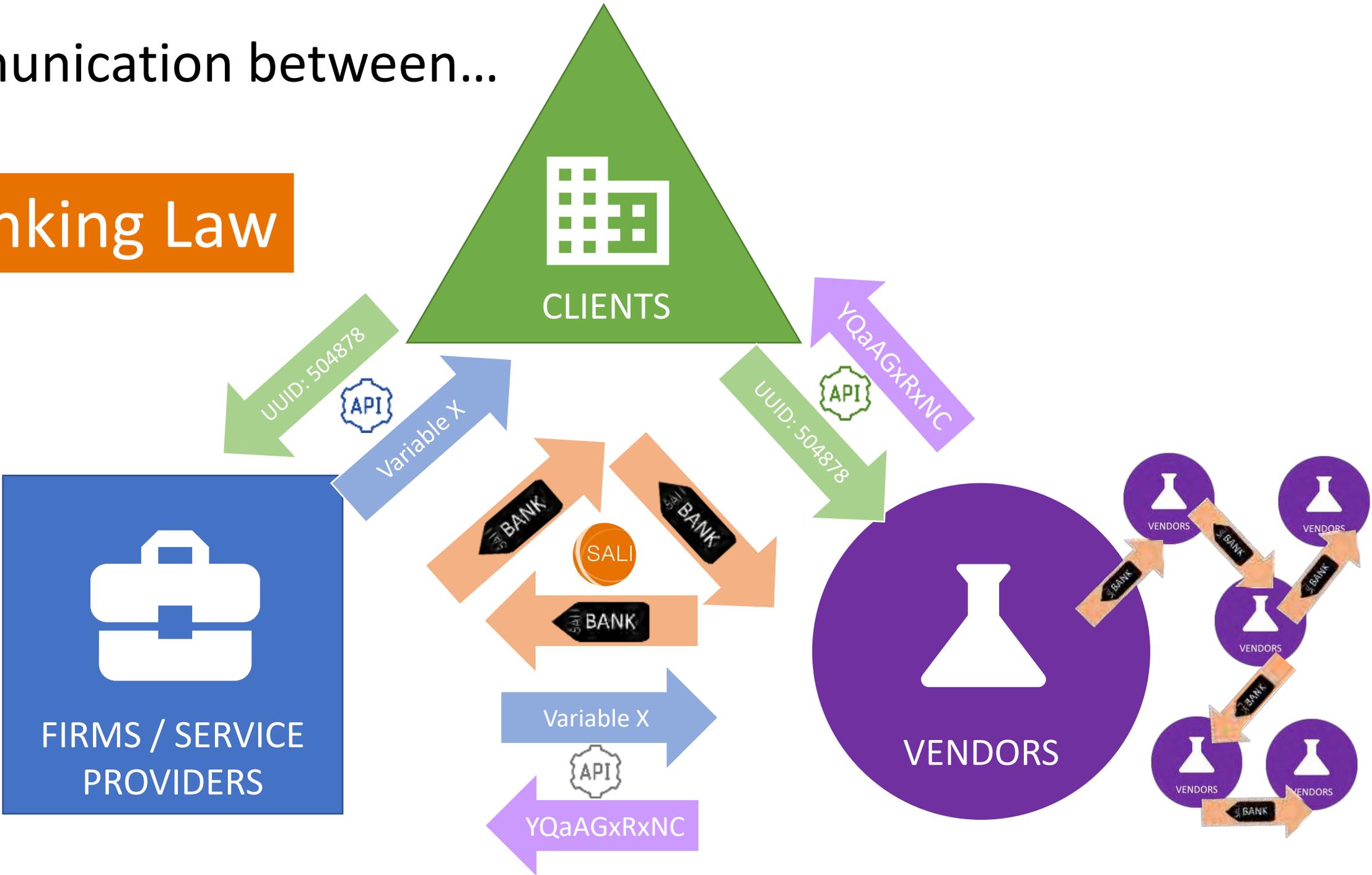


SERVICES
(Delivery)

INDUSTRIES
(Clients)

Communication between...

Banking Law

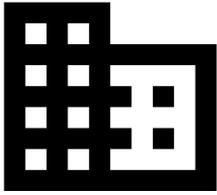




AREAS OF LAW

(Lawyers + Providers + Client Areas)

Category Level 1	Category Level 2 and 3	Description	Code	Full Code
Banking Law		Law that governs how banks and other financial institutions conduct business.	BANK	BANK
Banking Law	Banking Operations	Law governing routine banking operations including bank capital requirements, risk management, etc.	BOPS	BANK-BOPS
Banking Law	Bank Secrecy and Anti-Money Laundering	Law regulating financial institutions relating to money laundering.	SAML	BANK-SAML
Bankruptcy and Restructuring		Laws relating to insolvent individuals and companies.	BKCY	BKCY
Bankruptcy and Restructuring	Corporate Insolvency	Law relating to insolvency of corporations.	CBKR	BKCY-CBKR
Bankruptcy and Restructuring	Personal Insolvency	Law relating to debt relief for individuals.	PINS	BKCY-PINS
Constitutional and Civil Rights		Rights that protect individuals' freedom from infringement by governments, social organizations, and private individuals.	CIVR	CIVR
	Discrimination	Protection from discrimination on grounds such as DISC race, gender, sexual orientation, national origin, color, age, political affiliation, ethnicity, religion, and disability.		CIVR-DISC
	Individual	Individual rights such as privacy and the freedom of thought, speech, religion, press, assembly, and movement.		CIVR-INDV
	Political	Political rights include natural justice (procedural fairness) in law, such as the rights of the accused, including the right to a fair trial; due process; the right to seek redress or a legal remedy; and rights of participation in civil society and politics such as freedom of association, the right to assemble, the right to petition, the right of self-defense, and the right to vote.		CIVR-POLR



INDUSTRIES (Clients)

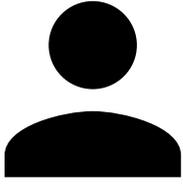
Category Level 1	Category Level 2	Description	Code	Full Code
Arts, Entertainment and Recreation		The Arts, Entertainment and Recreation industry group includes a wide range of establishments that operate facilities or provide services to meet varied cultural, entertainment, and recreational interests of their patrons. This sector includes establishments that are involved in producing, promoting, or participating in live performances, events, or exhibits intended for public viewing, establishments that preserve and exhibit objects and sites of historical, cultural, or educational interest; and establishments that operate facilities or provide services that enable patrons to participate in recreational activities or pursue amusement, hobby, and leisure-time interests.	AER	AER
	Amusement, Gambling, and Recreation Industries	Industries in this group include establishments that: operate facilities where patrons can primarily engage in sports, recreation, amusement, or gambling activities and/or; provide other amusement and recreation services, such as supplying and servicing amusement devices in places of business operated by others; operating sports teams, clubs, or leagues engaged in playing games for recreational purposes; and guiding tours without using transportation equipment.	AMUS	AER-AMUS
	Museums and Historical Sites	Industries in this group engage in the preservation and exhibition of objects, sites, and natural wonders of historical, cultural, and/or educational value.	MUSM	AER-MUSM
	Performing Arts and Spectator Sports	Industries in this group produce or organize and promote live presentations involving the performances of actors and actresses, singers, dancers, musical groups and artists, athletes, and other entertainers, including independent (i.e., freelance) entertainers and the establishments that manage their careers.	PASS	AER-PASS
Accommodation and Food Services		The Accommodation and Food Services industry group comprises establishments providing customers with lodging and/or preparing meals, snacks, and beverages for immediate consumption. The sector includes both accommodation and food services establishments because the two activities are often combined at the same establishment.	AFS	AFS
	Accommodation and Hospitality	Industries in this group provide lodging or short-term accommodations for travelers, vacationers, and others. There is a wide range of establishments in these industries. Some	ACCM	AFS-ACCM



SERVICES

(What's being delivered)

Level 1	Level 2	Level 3	Description	Code	Full Code
Advisory			Any process that provides advice to a single party without a adversarial event.		A
	Manuals		Development of legal manuals.	MAN	A-MAN
	Opinion Memos		A memorandum of law is a written explanation, based on research and analysis, of the drafter's opinion regarding a legal problem.	OPM	A-OPM
	Policies		Development of legal policies.	POL	A-POL
Financial Restructuring/Bankruptcy			Any process that involves the liquidation or restructuring of a business. The process usually has several parties - debtors, creditors and buyers.	B	B
	Out-of-Court Restructuring		An out-of-court restructuring or workout is a nonjudicial process through which a financially troubled company and its significant creditors reach an agreement for adjusting the company's obligations.	OOCRSTR	B-OOCRSTR
	US Chapter 11		Chapter 11 bankruptcy is a reorganization bankruptcy, and is available to individuals and businesses. The debtor remains in control of business operations under chapter 11 and doesn't sell off all of its assets.	USCHAP11	B-USCHAP11
	US Chapter 12		This form of bankruptcy is designed for "family farmers" and "family fisherman" that are under financial distress. Under chapter 12, the person in debt comes up with a plan to pay back creditors over three to five years.	USCHAP12	B-USCHAP12
	US Chapter 13		In chapter 13 bankruptcy, or a "wage earner plan", an individual that has regular income is allowed to develop a plan to pay back parts, or all, of their debts. One advantage of chapter 13 is it allows individuals to avoid foreclosure on their houses.	USCHAP13	B-USCHAP13



PLAYER / ACTOR

(Who's doing what)

Category	Description	Code	Full Code	Related Services
Appellant	An appellant is a person, company or entity that applies to a higher court for a reversal of the decision of a lower court.	APPL	APPL	Process: Dispute: Appellate
Applicant/Petitioner	An applicant or petitioner is a person who files a petition or makes an application or the person who is applying for a legal remedy to a problem.	APPT	APPT	Process: Dispute
Acquiree	An acquiree is a company or entity that is being acquired or purchased in a merger or acquisition transaction. The acquiree is also known as the target firm during a takeover scenario.	AQRE	AQRE	Process: Transaction: Merger and Acquisition
Acquiror	An acquiror is the surviving company or entity once a merger takes place.	AQRR	AQRR	Process: Transaction: Merger and Acquisition
Arbitrator	An arbitrator is an independent person or body appointed to hear a dispute in arbitration.	ARBT	ARBT	Process: Disputes
Assignee	An assignee is a person, company or entity who receives the transfer of property, title or rights from a contract. The assignee receives the transfer from the assignor.	ASGE	ASGE	Process: Transaction
Assignor	An assignor is a person, company or entity who transfers rights they hold to another entity. The assignor transfers to the assignee.	ASGR	ASGR	Process: Transaction

SALI EVOLUTION

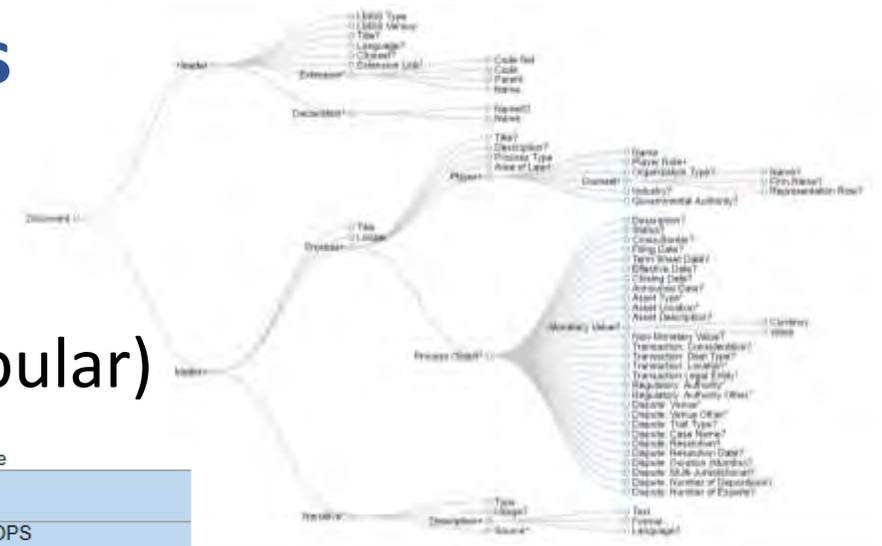
VERSION 1 (2017 - Feb. 2020):

Catalog Variables + Structure + UUID

1. Identify Many Billing Variables/Fields

Give each a UUID (code)

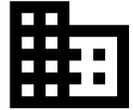
2. Provide Initial Structure (Relational/Tabular)



Category Level 1	Category Level 2 and 3	Description	Code	Full Code
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Banking Law	Banking Operations	Law governing routine banking operations including bank capital requirements, risk management, etc.	BOPS	BANK-BOPS
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Constitutional and Civil Rights		Rights that protect individuals' freedom from infringement by governments, social organizations, and private individuals.	CIVR	CIVR
	Discrimination	Protection from discrimination on grounds such as race, gender, sexual orientation, national origin, color, age, political affiliation, ethnicity, religion, and disability.		CIVR-DISC
	Individual	Individual rights such as privacy and the freedom of thought, speech, religion, press, assembly, and movement.		CIVR-INDV

VERSION 2:

SALI will better embody intersection of...



1. Business of Law (buying/selling legal services)

- “Show me the **Budget Range** for each of those **AREAS_OF_LAW**.”
- “What’s our **Median Cost** for these **SERVICES**?”
- “Who has **Experience** in **JURISDICTION**? Before **JUDGE**?”



2. Substantive Law

- “...for all **Debt Financing** deals.”
- “...for all **Product Liability** lawsuits.”
- “...for all **Negligence** settlements”
- “...for all **Premises Liability** experts”



3. Procedural Law

- ...involving **FEDERAL_AGENCY**.”
- ...involving **Motions to Dismiss**.”
- ...involving **ACTOR** as **Buyer** and **ACTOR** as **Seller**.
- ...involving **Fed. R. Civ. P. ___**.”

VERSION 2:

Expanded Practice Areas + Engagement + Relationships + API



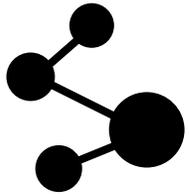
1. LITIGATION* **Substantive Variables/Fields** (e.g., Litigation Claims, Motions)

- i. **Actors/Players** (e.g., plaintiff, defendant, judge, arbitrator)
- ii. **Causes of Action** (e.g., breach of contract, patent infringement, fraud, negligence)
- iii. **Documents** (e.g., motion to dismiss, brief, complaint, answer)
- iv. Many others

* Other expanded practice areas TBD



2. **ENGAGEMENT TERMS:** (e.g., scope, budget, fee arrangement)



3. **GRAPH STRUCTURE** (e.g., Neo4j) — Create Relationships/Relevance Graph

- i. (Node) -Relationship-> (Node)
- ii. (Actor) -PerformedAction-> (Object)
- iii. (Lawyer) -Drafted-> (Document)



4. **INTEROPERABILITY:** Uniform Communication Structure (to query UUIDs)

- i. Build API
- ii. Build JSON and XML

Proposed New Top-Level Dimensions



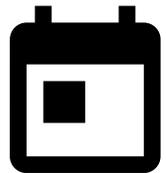
1. Documents

e.g., agreement, motion to dismiss, license, complaint



2. Objectives

e.g., claims, defenses, remedies, evidentiary burdens



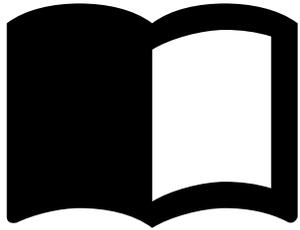
3. Events

e.g., closing, hearing, trial, deposition



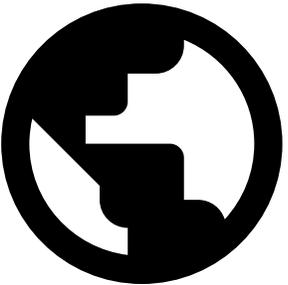
4. Integrate Service Details into Service

All Nodes: Objective, Not Subjective



All Facts from:

- Treatises
- Rules (e.g., Fed. R. Civ. P.)
- Existing Compilations



Results

- Broadly applicable
- Uniform/normalized across many jurisdictions
- Most-used aspects of broad array of states
(e.g., California, New York, Texas, Florida, Illinois)

Hierarchical/Relational Data vs. Graph/Nodes

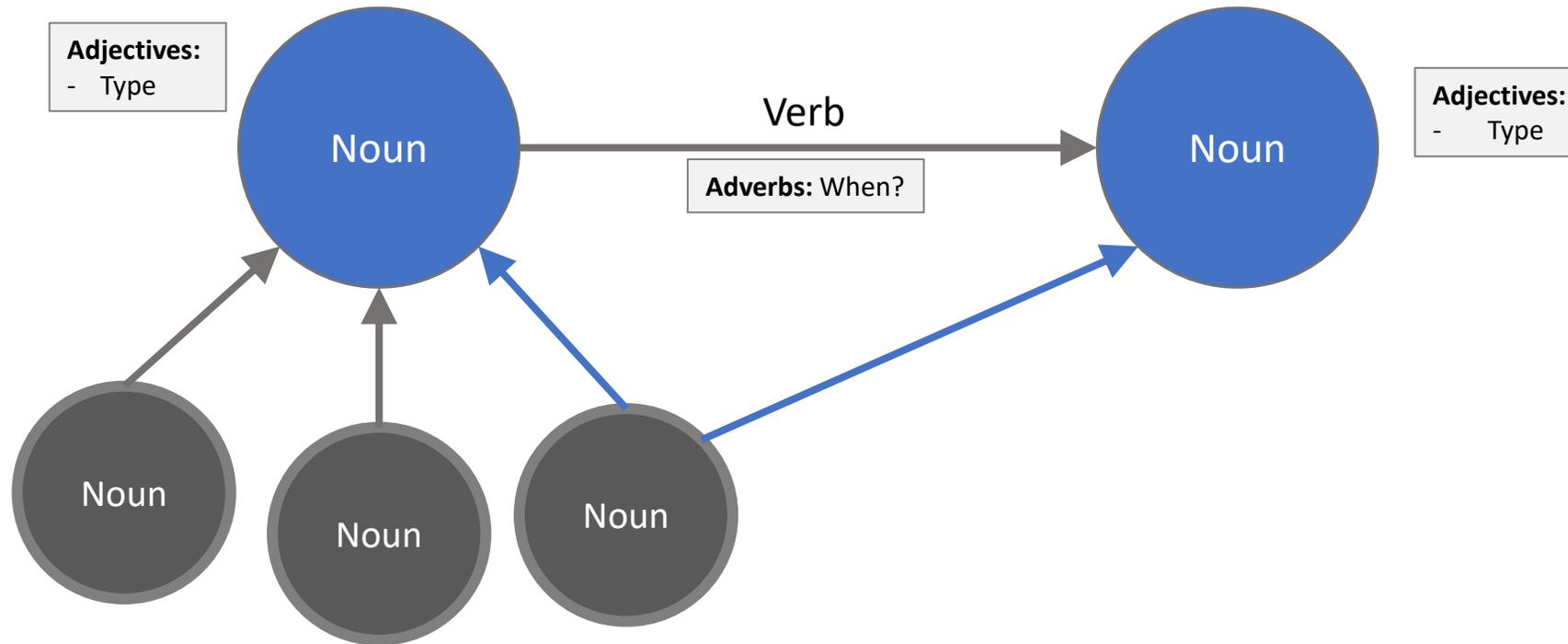
SALI Areas of Law (Version 1.0)

Current Hierarchical/Relational Structure

64	SALI Area of Law	1	LEMP	LEMP	Labor and Employment Law ↑ 1:1 parent/child
65	SALI Area of Law	2	DSCE	LEMP-DSCE	Employment Discrimination
66	SALI Area of Law	2	HLTE	LEMP-HLTE	Employment Health and Safety
67	SALI Area of Law	2	IMME	LEMP-IMME	Employment Immigration
68	SALI Area of Law	2	LABR	LEMP-LABR	Labor Law
69	SALI Area of Law	2	PENB	LEMP-PENB	Pension and Benefits Law
70	SALI Area of Law	2	UNBE	LEMP-UNBE	Unemployment Benefits

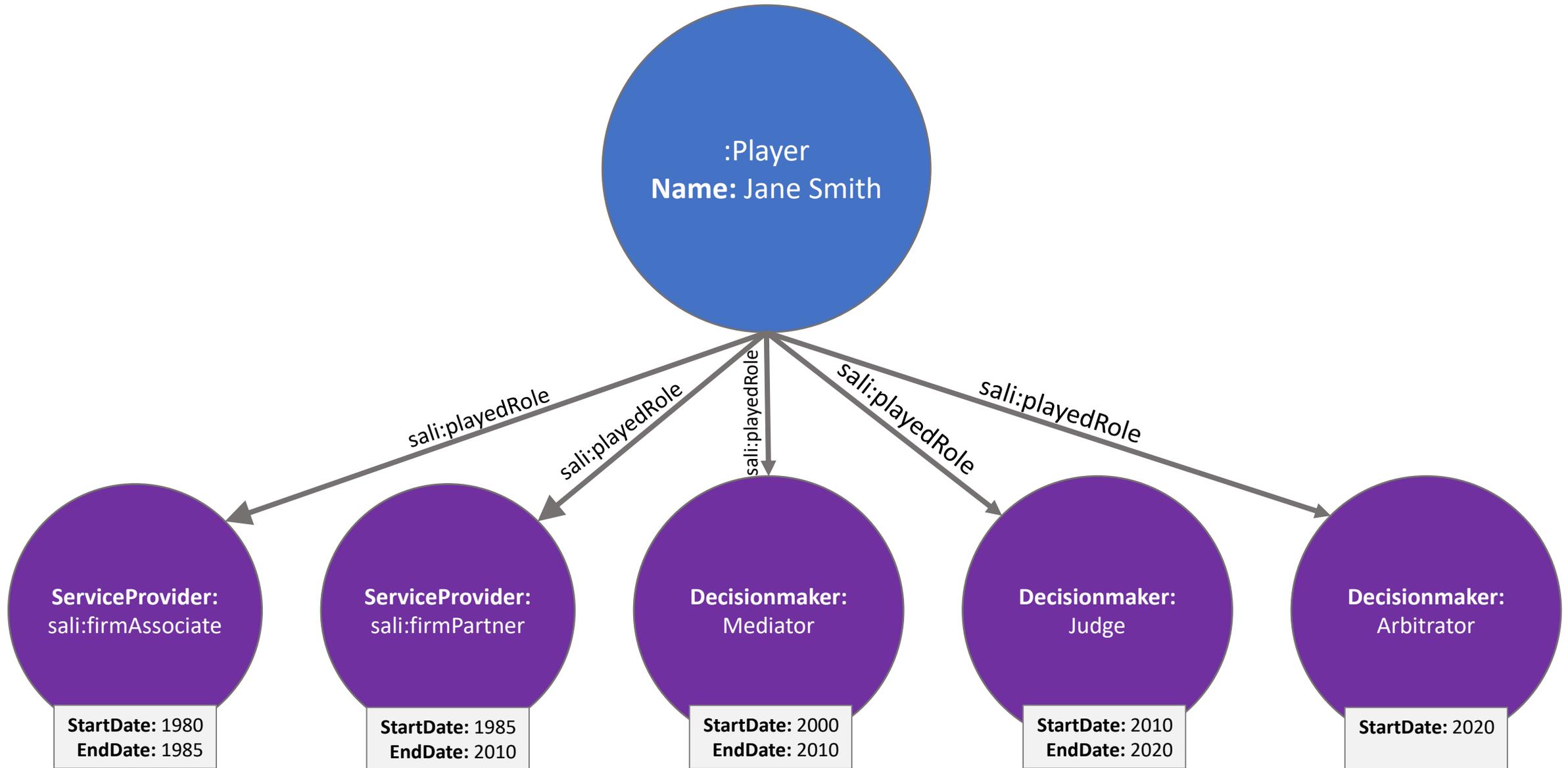
Graph Data Structure as Language

(nouns, verbs, adjectives, adverbs)

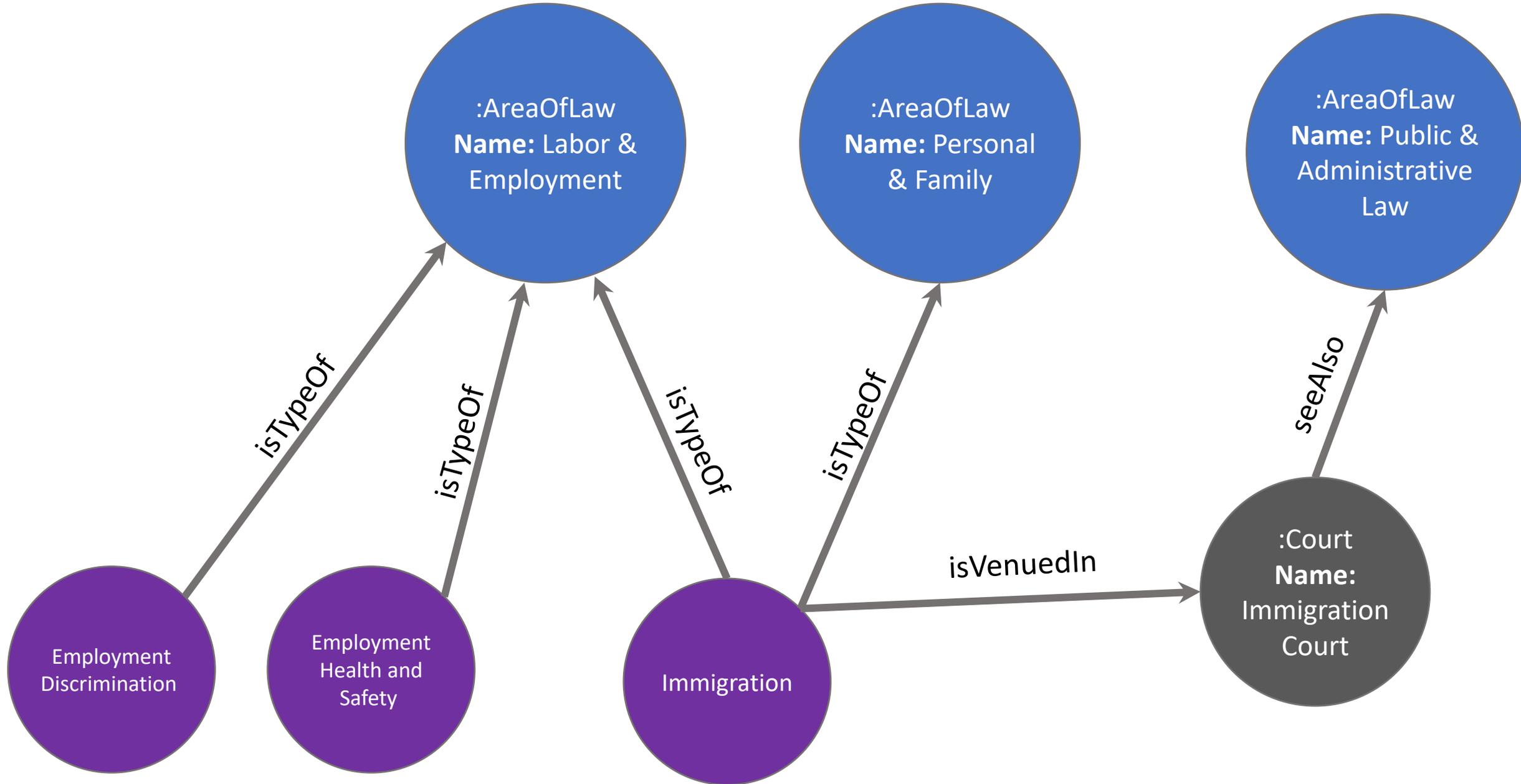


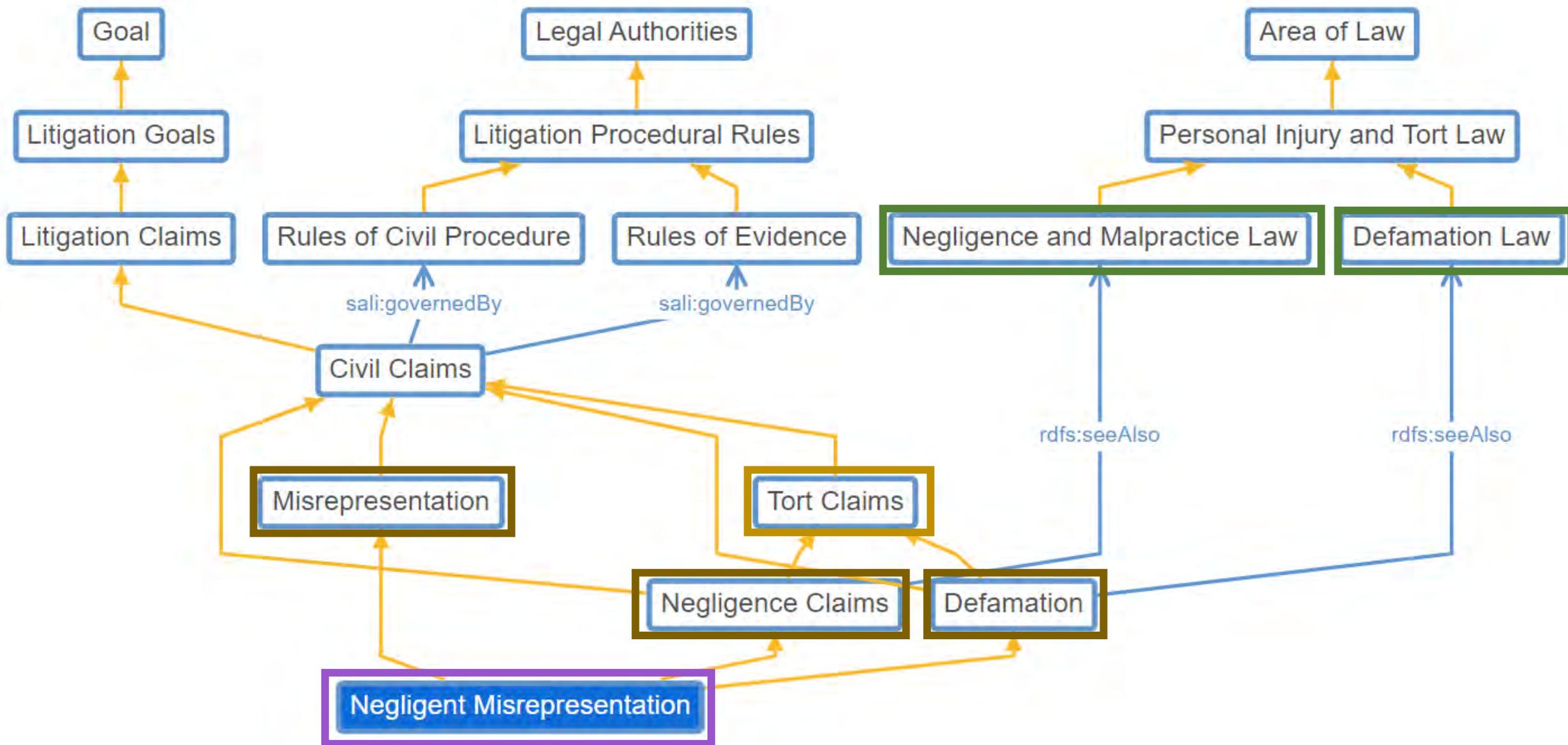
Person's Role Changes Over time:

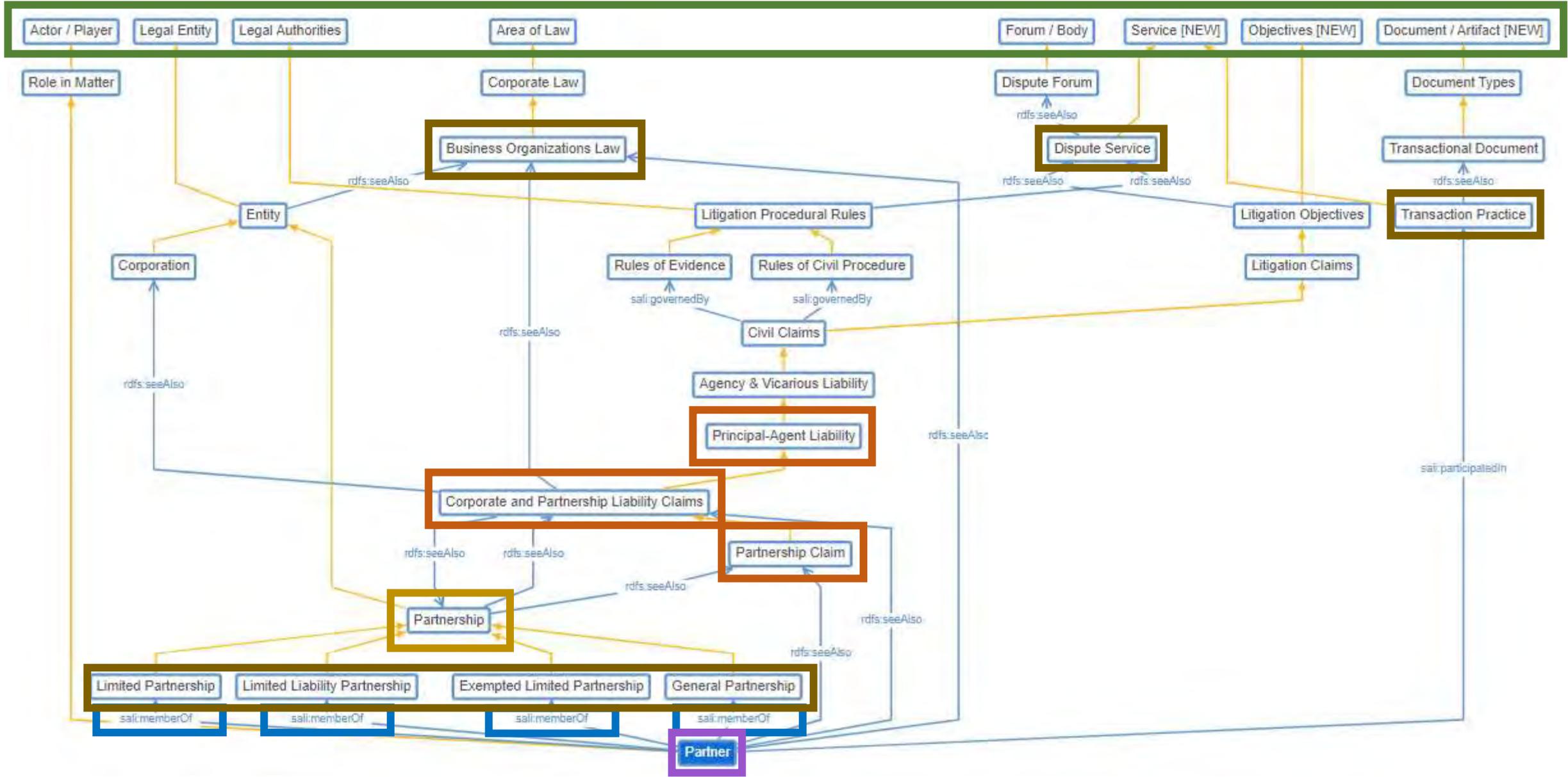
E.g., Lawyer → Mediator → Judge → Arbitrator



Exemplar SALI Node Structure







Class Hierarchy



- Health Care Ombudsman
- Independent Committee
- Interpreter
- Investigator / Examiner
- Investor
- Issuer
- Landlord
- Law Enforcement
- Lender
- Lessee
- Lessor
- Licensee
- Licensor
- Liquidator
- Litigant
- Monitor
- Nonparty
- Notary Public
- Parent
- Partner**
- Payee
- Payor
- Principal
- Process Server
- Realtor
- Receiver
- Register of Deeds

Class: Partner



IRI

<http://webprotege.stanford.edu/R9oT1uDgFI2wSjoa358Wowx>

Annotations

rdfs:label

Partner

skos:definition

A partner is an individual who is a member of a partnership - an entity formed when at least two or more individuals agree to go into business with one another.

Enter property

Enter value

Parents

Role in Matter

Enter a class name

Relationships

rdfs:seeAlso

Business Organizations Law

rdfs:seeAlso

Corporate and Partnership Liability Claims

rdfs:seeAlso

Partnership Claim

sali:memberOf

Exempted Limited Partnership

sali:memberOf

General Partnership

sali:memberOf

Limited Liability Partnership

sali:memberOf

Limited Partnership

sali:participatedIn

Transaction Practice

Motor Vehicle Negligence Liability

▼ Negligence Claims

- Administrative Negligence
- Agent's Negligence Causing Harm to Others
- Aviation Negligence Claim
- ▶ Common Carrier Liability
- ▶ Construction Negligence Claims
- Cybersecurity Negligence
- Economic Loss Doctrine
- Failure to Warn and Protect from a Violent Patient
- Foster Care Negligence
- Good Samaritan Liability
- Gross Negligence
- Landlord Negligence
- ▶ Malpractice Claims
- Maritime Negligence
- ▶ Medical Negligence Claims
- Motor Vehicle Negligence
- ▶ Negligence
- Negligent Entrustment
- Negligent Exposure of Another to Disease or Toxic Substance

IRI

http://webprotege.stanford.edu/R71WldxeRqBtSANhmV4nmsu

Annotations

● rdfs:label

Failure to Warn and Protect from a Violent Patient

en-US



Enter property

Enter value

lang

Parents

- Negligence Claims
- Personal Injury Claims
- Medical Malpractice Claims



Enter a class name

Relationships

Enter property

Enter value

lang

Demo WebProtege

Stanford University

Open Source + Free

Build Ontologies/Taxonomies (e.g., Molecular Biology)

Collaborative (i.e., web-based)

Exportable to machine-readable code (e.g., XML)