



ALMA MATER STUDIORUM
UNIVERSITÀ DI BOLOGNA

AI to serve the efficiency and the quality of justice

Giuseppe Contissa

Giovanni Sartor

LUISS University, Department of Law

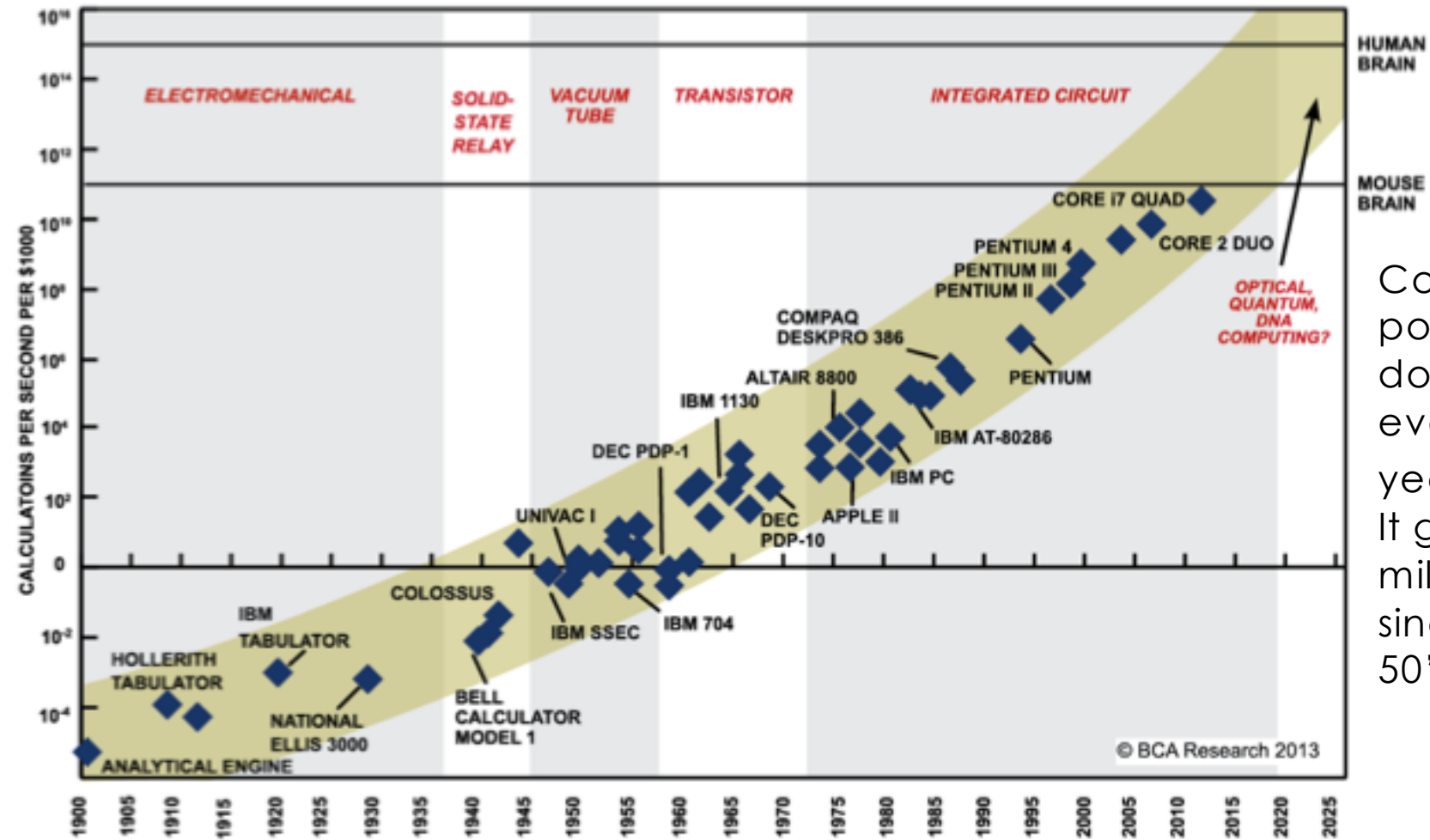
CIRSFID - University of Bologna

European University Institute of Florence

Summary

- Computable law
 - The four enablers
- The three waves of computable law
 - Legal sources
 - Man-made models of the law
 - Data and machine learning

Enablers for computable law: computer power

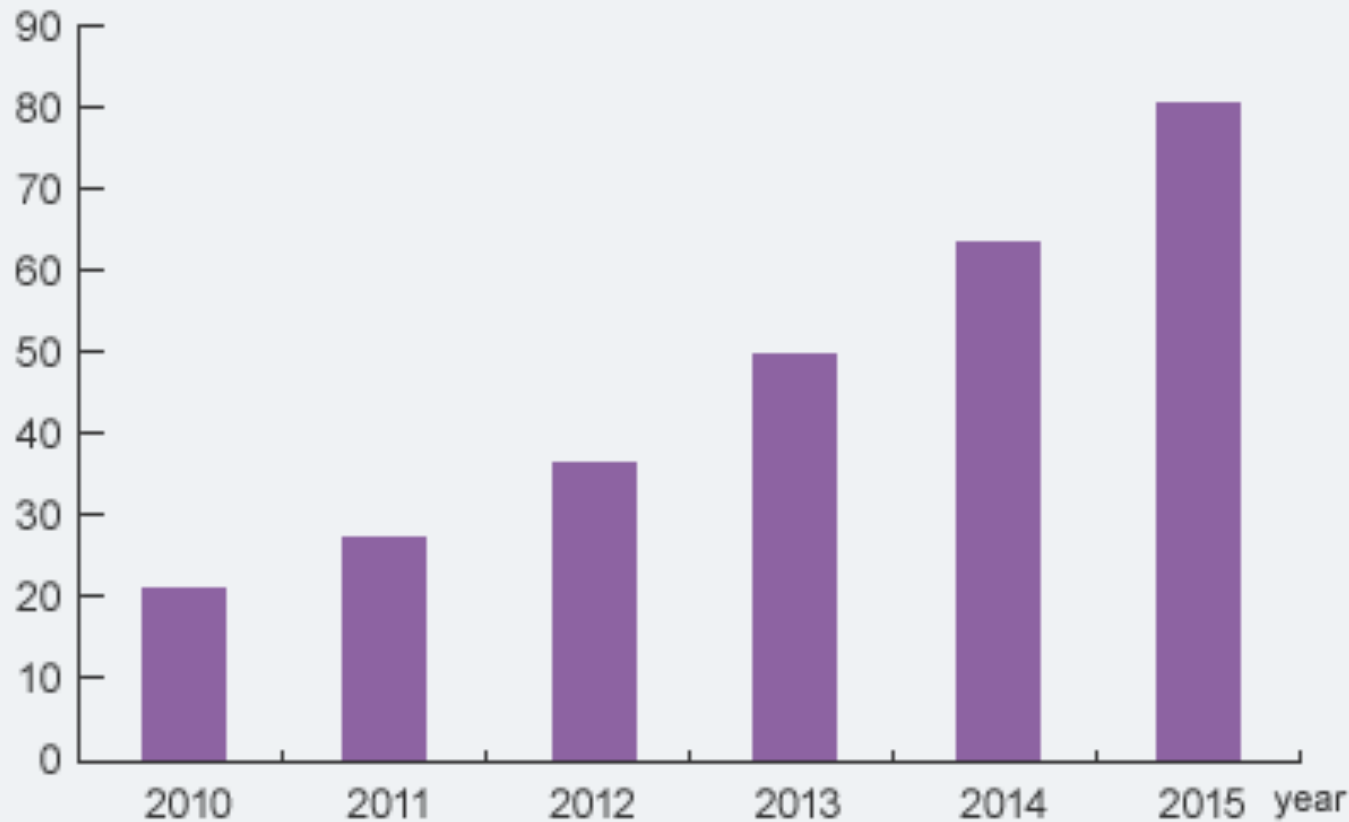


SOURCE: RAY KURZWEIL, "THE SINGULARITY IS NEAR: WHEN HUMANS TRANSCEND BIOLOGY", P.67, THE VIKING PRESS, 2006. DATAPOINTS BETWEEN 2000 AND 2012 REPRESENT BCA ESTIMATES.

Computing power doubles every 1.5 year
It grew 1 million times since the 50's

Enablers for computable law: Communication

(exabytes/month)

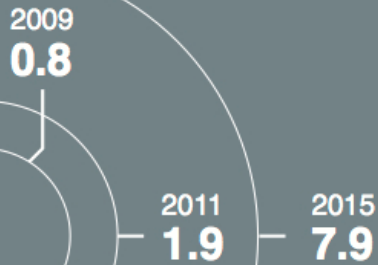


Information exchanges
(1 Exabyte = 1 billion gigabytes)

Big data, big business

The business of storing, decoding, and analysing data, from your Facebook updates or tweets, to figures that help companies increase profit or cut costs, is one of the hottest industries in the world today

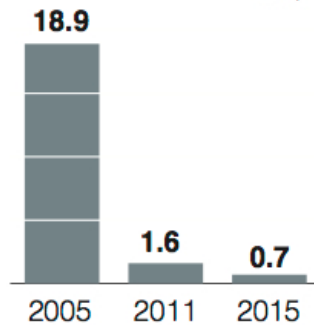
GROWTH OF GLOBAL DATA
(In zettabytes)



*A zettabyte is
1,099,511,627,776
gigabytes*

**2020
35**

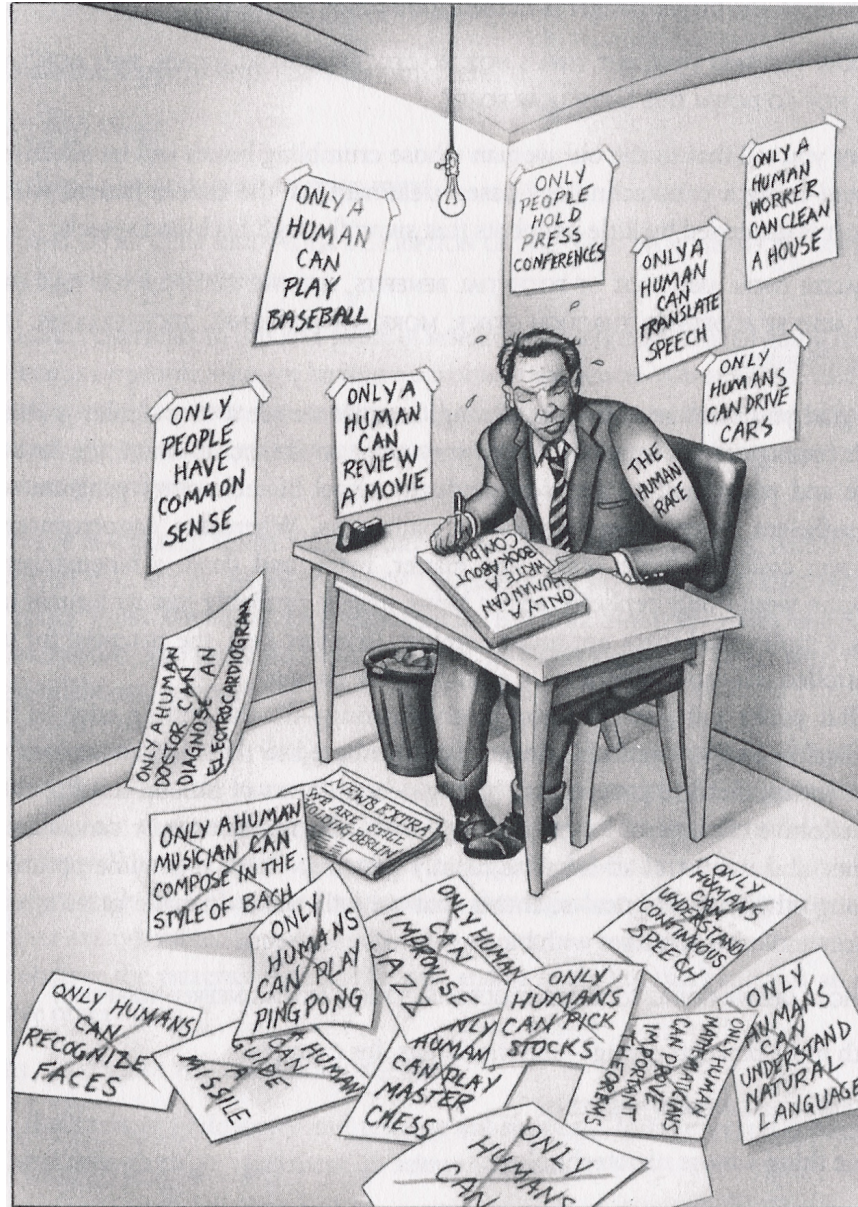
**STORAGE COST
PER GIGABYTE**
in US\$



Enablers for computable law: Data

The amount of available data grows as storage cost goes down

Enablers for computable law: AI



More and more
is done
by intelligent machines

From Ray Kurzweil, the Age of Spiritual
machines

AI takes off !

Artificial Intelligence Takes Off at Google

Number of software projects within Google that uses a key AI technology, called Deep Learning.

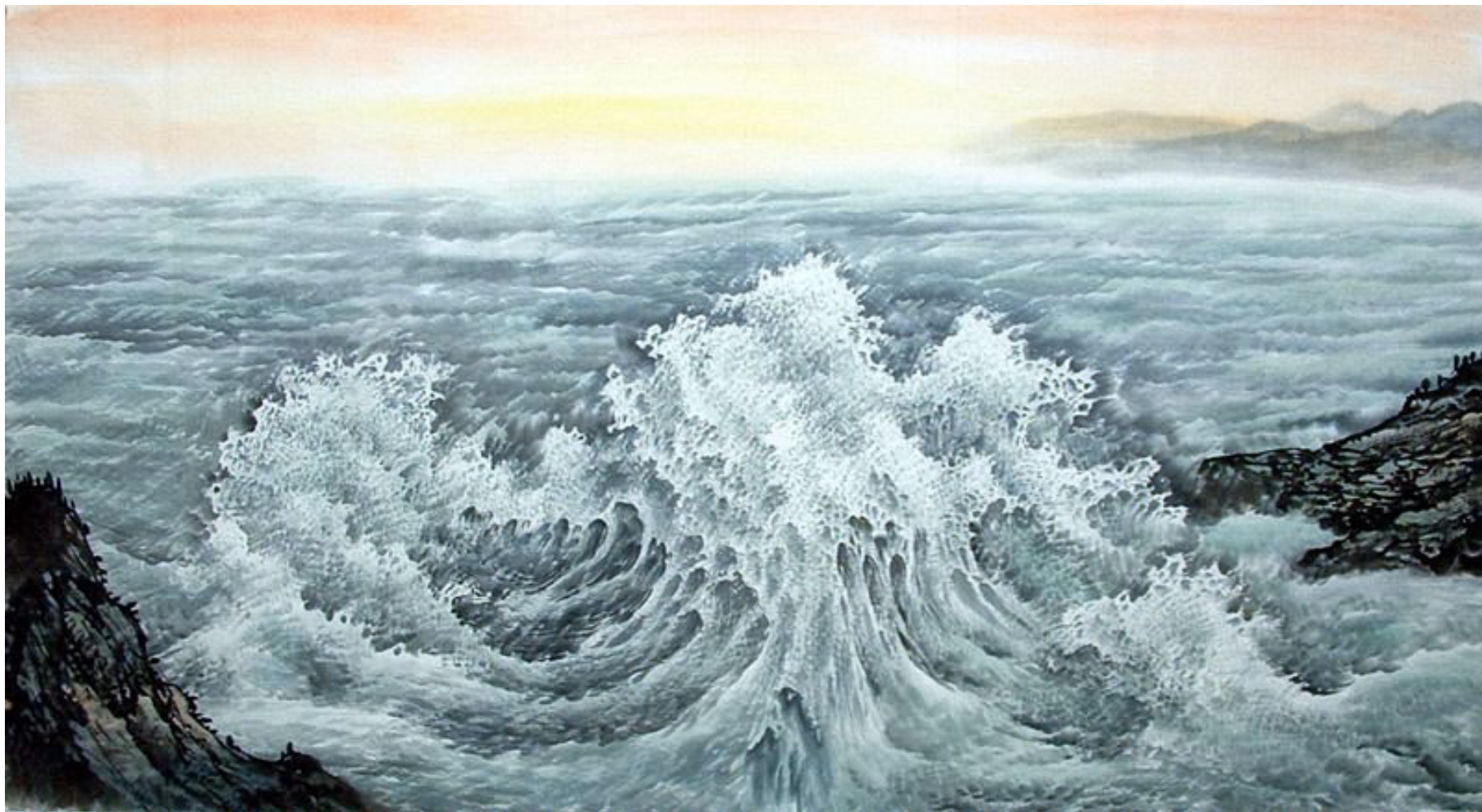


Source: Google

Note: 2015 data does not incorporate data from Q4

Bloomberg 

The first wave of computable law: legal sources



The first wave: legal sources



John Harty (US): first
Legal IR system, 1959



John Bing (Norway)



Renato Borruso
(Italgivre, Italy)



Spiros Simitis
(Germany)

Electronic legal sources

- Input: Legal sources (statutes, regulations, cases)
- Output: retrieved/ranked documents
- Process:
 - boolean, statistical, conceptual search etc
 - consolidation, visualisation

Legal sources



- First legal information systems
- National and federated systems
- The web as the largest legal database
- Conceptual-intelligent search



What about IR and judges?

- Legal information retrieval is an essential tool for a judge's work
- AI can contribute (and is already contributing) to better legal information retrieval. Some advanced functions are available in commercial systems (e.g. Lexis-nexis or Westlaw)
 - Ranking of retrieved documents
 - Citation networks
 - Conceptual retrieval (ontologies)
 - Selection of most relevant fragments (semi-summarisation)

Further prospects for making legal documents retrievable and reusable for new decisions

- Better, deeper, automated conceptual retrieval
- Argument mining (extracting relevant arguments)
- Selection and ranking of most similar cases, and extraction of most significant fragments, arguments, etc.

The second wave of computable law: man-made models of the law



The second wave of CL: man-made models of the law

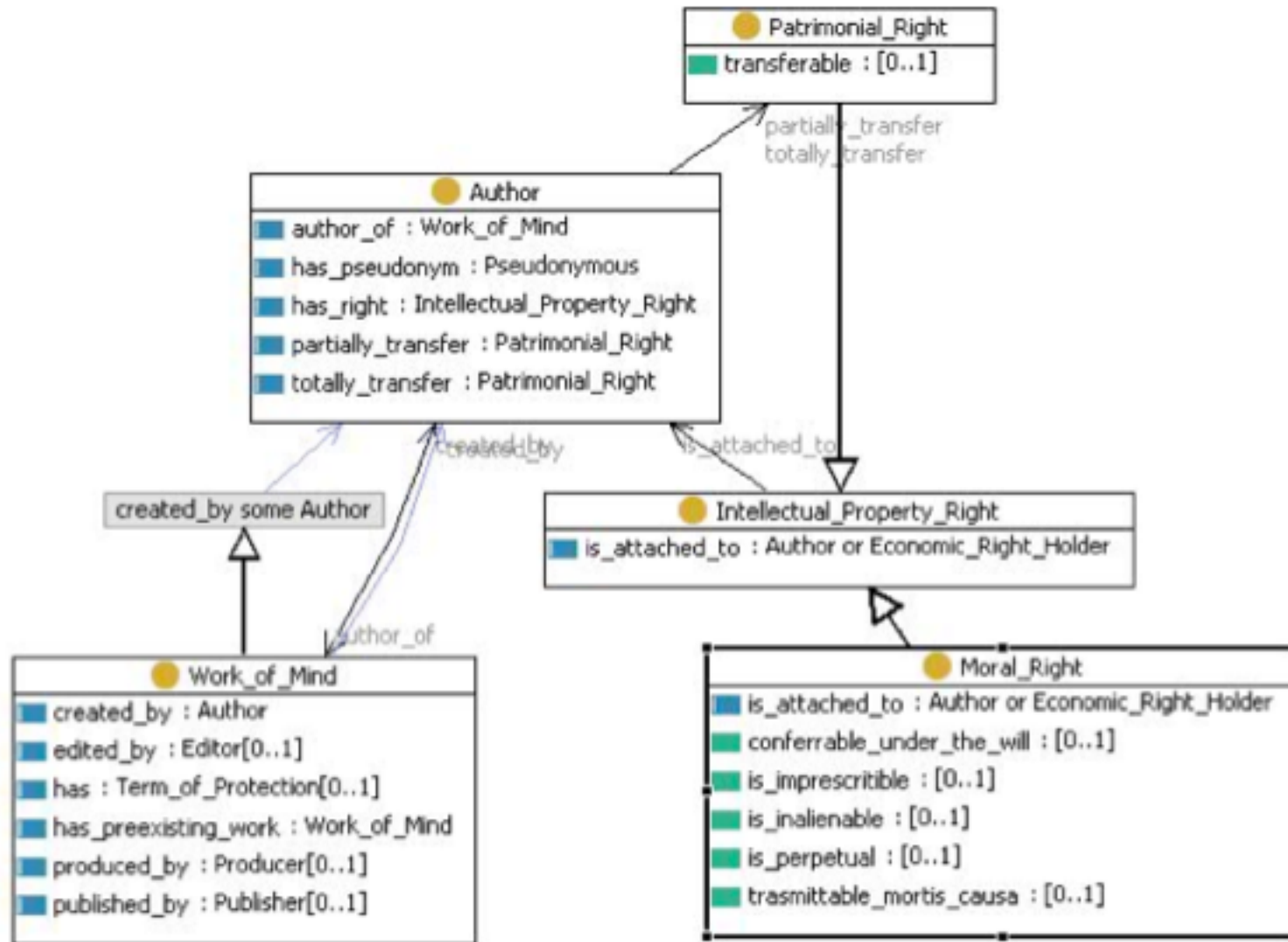
Step one: modeling/formalisation

- Input: sources, cases, concepts, doctrines
- Output: computable models (knowledge base)
- Process: legal programming/knowledge representation

Step two

- Input: computable models of the law
- Output: Answers, legal qualifications, support to decision-making
- Process: Forward and backward rule chaining, deduction, defeasible reasoning, etc.

Legal concepts: ontologies



Rule-based systems in the law

- by the 1980s, a number of researchers had implemented working systems based on manually created logical representations of rules e.g., Sergot et al. (1986) (British Nationality Act)
- difficulties of scaling the logic-based approach to the dimensions of complex, dynamic, real-world legal systems.
- These difficulties arise from two fundamental technical challenges:
 1. efficient and verifiable representation of legal texts as logical expressions; and
 2. evaluation of legal predicates based on facts expressed in the language of ordinary discourse.

The British Nationality Act as a Logic Program

1-(1) A person born in the United Kingdom after commencement shall be a British Citizen if at the time of birth his father or mother is:

- (a) a British Citizen, or
- (b) settled in the United Kingdom.

- Rule1: X acquires british citizenship on date Y
 - IF X was born in the u.k.
 - AND X was born on date Y
 - AND Y is after or on commencement of the act
 - AND X has a parent who qualified under 1.1 on date Y.
- Rule2: X has a parent who qualifies under 1.1 on date Y
 - IF X has a parent Z
 - AND Z was a British citizen on date Y
- Rule3: X has a parent who qualifies under 1.1 on date Y
 - IF X has a parent Z
 - AND Z was settled in the u.k. on date Y.

The bright side

However,

- Many application in public administration
- New more powerful rule languages are available
- Better interfaces to handle queries and link data

E.g.: Oracle policy automation, Raap (regulation as a platform), Coherent Knowledge

Rules: Oracle Policy Automation

Income And Assets.doc [Compatibility Mode] - Microsoft Word

Home Insert Page Layout References Mailings Review View Developer BI Publisher Oracle Policy Modeling

Conclusion Level: 3 Rule Structure Rule Table Compile Add Attribute Attributes and Properties Configuration Table Legend Rule Name Rule Properties Attribute Editor Data Model Browser Behavior Document

the individual satisfies the income and assets test if

the individual's total cash assets < the Couple or Sole Parent Cash Asset Limit and one of

all

the individual is living in boarding accommodation and the individual's weekly board payment > the Sole Parent with 1 or more children Rent/Board rate

or

all

the individual is living in rental accommodation and the individual's total weekly rent payment > the Sole Parent with 1 or more children Rent/Board rate

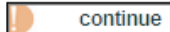
or

all



the individual is living in their own home and the individual's total costs for their own home per week > the Sole Parent with 1 or more children Own Home rate

Explanations: Oracle Policy Automation

The entity shall report to the competent authority the information concerning the interest payment.

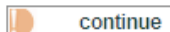
 continue

The reasoning applied in reaching this conclusion is set out in hierarchical form below. Answers you have provided to questions during the interview are presented as active links. To review or change the answers to these questions, click the links provided.

Use the expand  and contract  icons to show or hide additional detail in the report.

This conclusion is justified on the following grounds:

- Section (7) is satisfied.
 - The interest is paid by a paying agent.
 - The payment is an interest payment.
 - Section (6) is satisfied.
 - Section (6)(1) is satisfied.
 - Section (6)(1)(a) is satisfied.
 - [The payment is an interest paid or credited to an account, relating to debt claims of every kind.](#)
 - The entity is a paying agent.
 - Section (4) is satisfied.
 - Section (4)(1) is satisfied.
 - [The entity is an economic operator who pays interest to the beneficial owner.](#)
 - The individual is a beneficial owner.
 - Section (2) is satisfied.
 - Section (2)(1) is satisfied.
 - [The individual receives an interest payment.](#)
 - Section (2)(1)(a) is satisfied.
 - [The individual does not provide evidence that he acts as a paying agent within the meaning of Article 4\(1\).](#)
 - [The paying agent is established within the territory to which the Treaty applies by virtue of Article 299 thereof.](#)

 continue

What about the judiciary and rule-based systems

Rule-based systems have have are significant for public administration, not so much for the judiciary:

- They only provides a simplified analysis of the law, appropriate when issues are uncontroversial and speed and accuracy are at state.
- Judges focus on controversial cases, where there is an issue to be addressed, concerning either the facts of a case, or the applicable law

In the algorithm driven society, judges should not be the mere appliers of algorithms, but rather their critical evaluators

- Address cases where rule-based systems provide no answer, or where the rules are questioned

From rules to argumentation-based system



H. Prakken



T. Gordon



D. Walton



B. Verheij



PM Dung



T. Bench-Capon

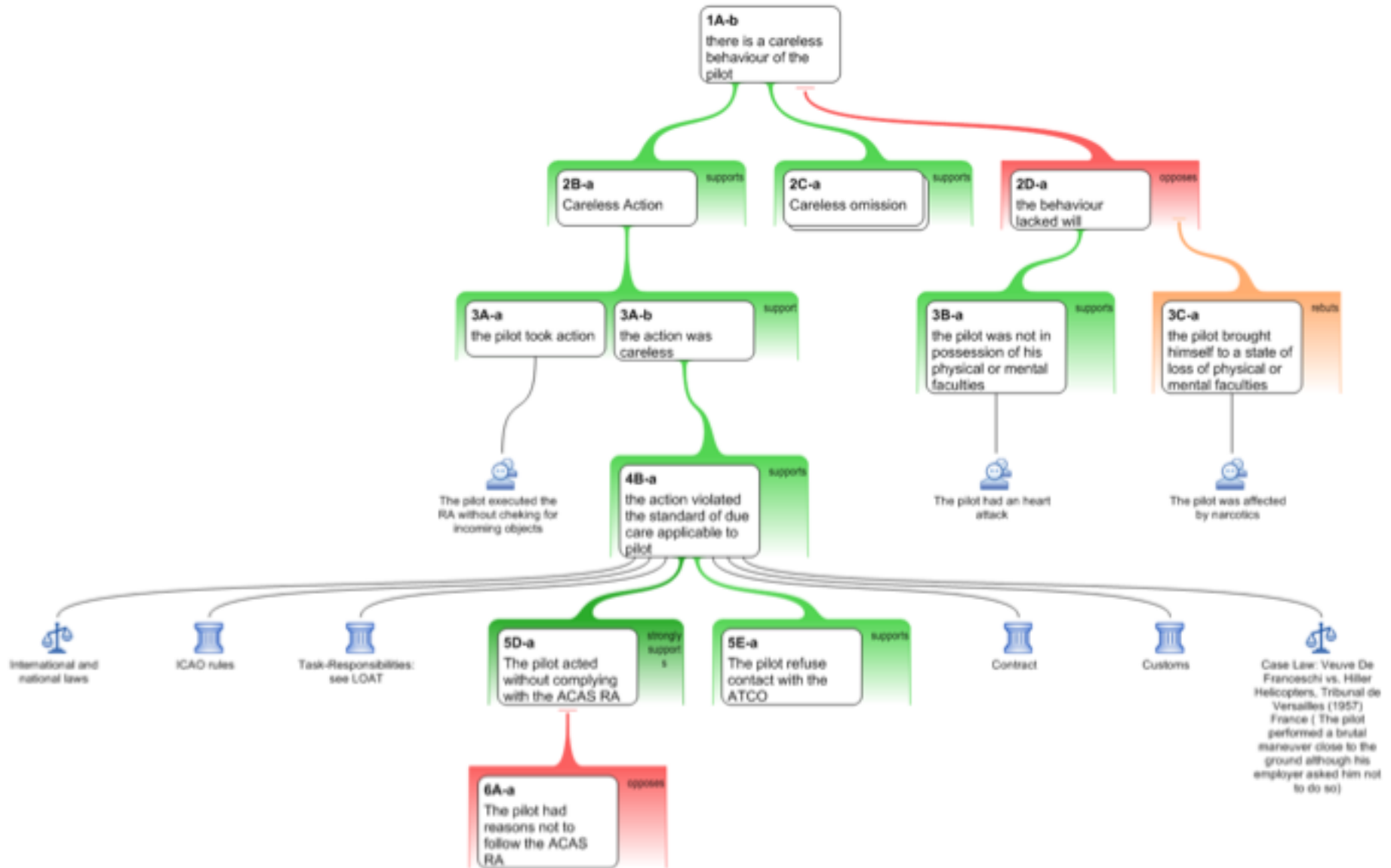


K. Atkinson

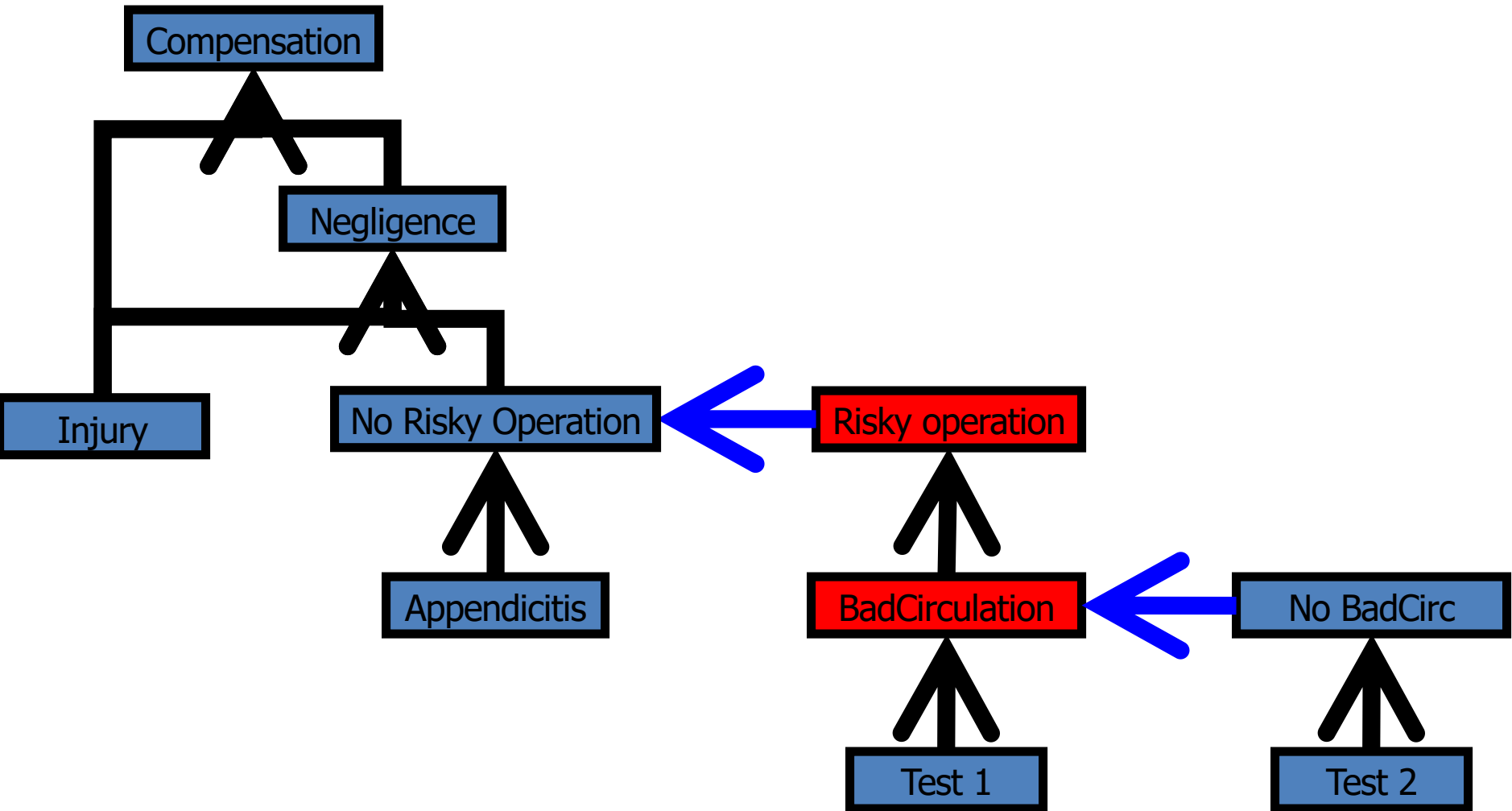


R. Loui

Mapping arguments



Assessing/presenting arguments



What uses for judges?

Argumentation-systems include

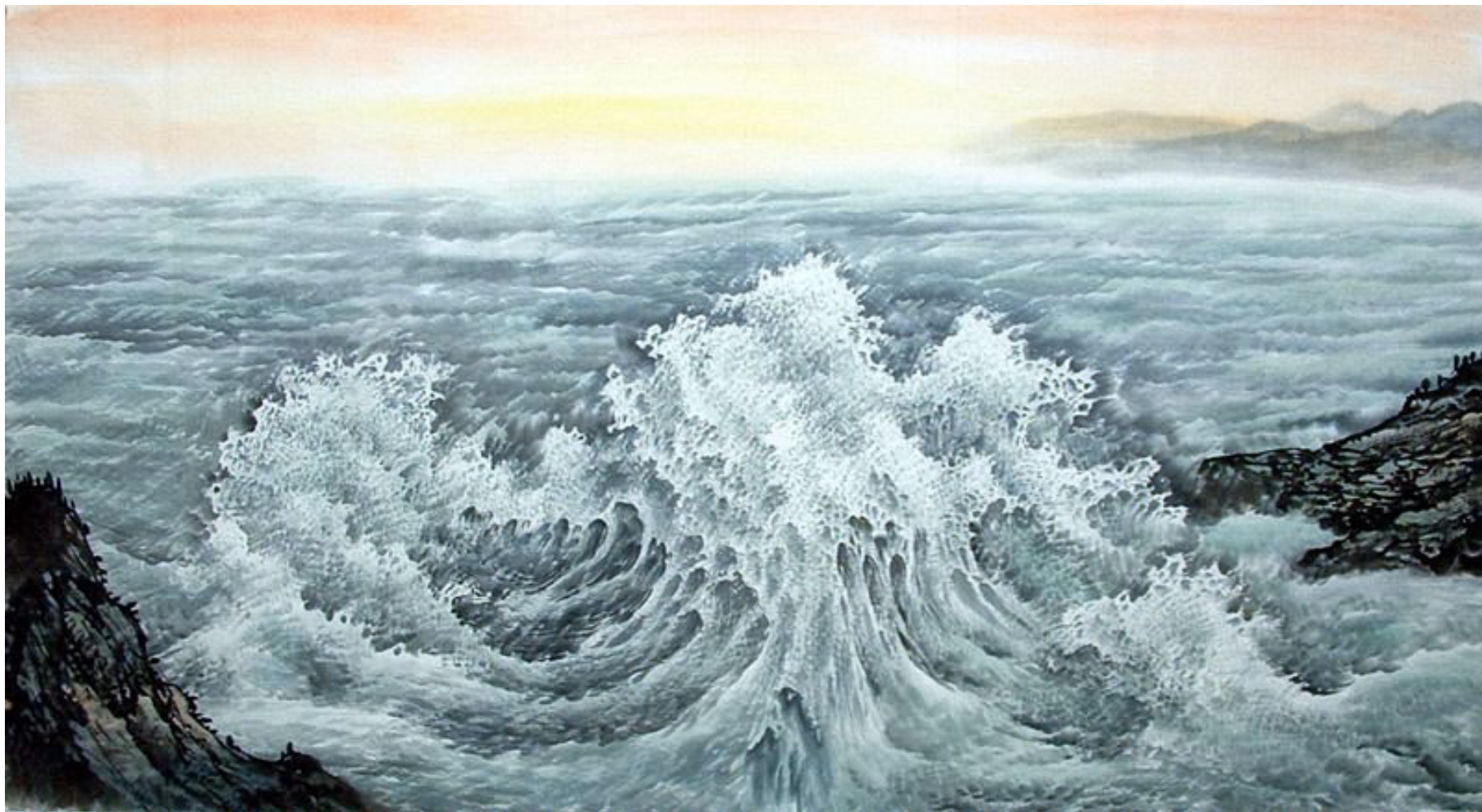
- multiple rules, cases and principles, and
- multiple ways to build arguments out of them and
- Methods for organise

Have not yet been commercially successful in the legal domain

Possible uses in the judiciary

- For lawyers to present their argument
- For judges to understand the interaction of arguments presented by the parties
- On the top of system for extracting arguments and rules from cases

The third wave of computable law: data and machine learning



Should Lawyers Fear Big Data, or Embrace It?

ARTICLE

COMMENTS

CIVIL LITIGATION JUDGES LAW AND TECHNOLOGY LAWYERS AND LAW FIRMS



By JENNIFER SMITH [CONNECT](#)

Lawyers can—and will—argue until the cows come home about whether the law is an art or a science.

But attorneys who employ a more quantitative approach to litigation could well see some substantial benefits in the courtroom, according to a draft paper out this month by a professor at the South



THE WALL STREET JOURNAL.

Data-centric approach

- In recent years, a new area of research has emerged that performs legal problem solving using knowledge induced from collections of legal documents or other large data sets.
- Emergence of this data-centric approach coincided with development of techniques for statistical analysis of very large data sets, including large text corpora
 - **Machine learning (ML)**
 - Supervised: based on a training set (examples of input-output pairs). Once trained, the system will be able to provide correct answers for every new input
 - Unsupervised: the system is provided with a set of inputs.
 - **Legal Text analytics** (or Legal analytics, or LA): ML applied to the analysis of texts containing relevant legal data

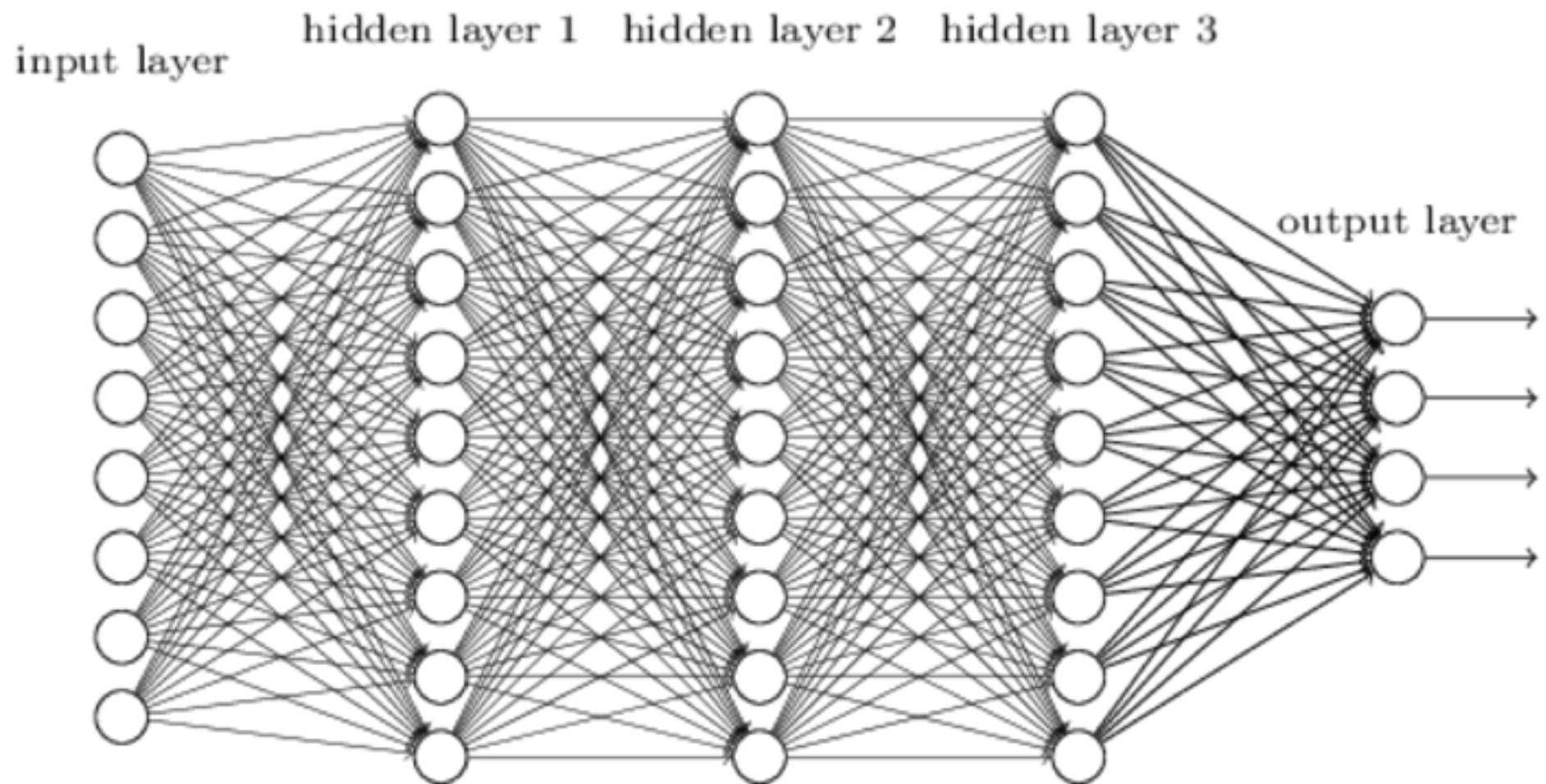
Law prediction/rule construction

Induce rule to "explain" data: *Should defendant be released on bail?*

Case	Injury	Drugs	Weapon	Prior-record	Result
1	none	no	no	yes	yes
2	bad	yes	yes	serious	no
3	none	no	yes	no	yes
4	bad	yes	no	yes	no
5	slight	yes	yes	yes	no
6	none	yes	yes	serious	no
7	none	no	yes	yes	no

From Ashley and Gordon 2005

Legal deep networks?



Data-centric approach

- proliferation of legal technology companies (more than 600 by one estimate), most focused on lucrative applications in litigation support.
- Main areas of recent data-centric applications:
 1. document-oriented
 2. case-oriented

1. Document-oriented approaches

Focused on the analysis of individual documents.

- Information extraction: the process of identifying named entities such as places, persons, organizations, dates, claims, etc., as well as extracting more complex information, such as events and narratives.
- Automated summarization: creation of summaries of case facts, decisions, and other legal documents
- Parsing statutory texts: automated conversion of statutory text to machine-interpretable rules
- Predictive retrieval: real-time interactive retrieval of legal texts to operate predictively in the form of cognitive assistants.

Document-oriented approaches: automated summarization

Automated summarization: creation of summaries of case facts, decisions, and other legal documents

- Approaches:
 - Abstractive summarization (AI-based approach that selects content appropriate for a summary and combines it into coherent text)
 - Summarization of parenthetical descriptions (approach that harvests parenthetical descriptions that judicial opinions place after citation to another case, and assembles them in a single summary)

Abstractive summarization: Legalrobot (legalrobot.com)

LEGAL ROBOT

Search

Credits
6 + 2 free



Memorandum of Terms

View/Edit Document

Report

Sign Document

Memorandum of Terms

This is a brief Term Sheet used for venture financing of a Series A investment round. The language is fairly clear, but could be better. The terms are relatively balanced and consistent with this type of agreement. There are terms that provide investors with common, but significant, rights like "right of first refusal", "co-sale agreement" and "no-shop period".

Confidential

LEGAL ROBOT, INC.

Memorandum of Terms

Except with respect to the provisions entitled "Confidentiality", which are intended to be, and are, legally binding agreements among the parties hereto, this Memorandum of Terms represents only the current thinking of the parties with respect to certain of the major issues relating to the proposed private offering and does not constitute a legally binding agreement. This Memorandum of Terms does not constitute an offer to sell or a solicitation of an offer to buy securities in any state where the offer or sale is not permitted.

The Offering

Issuer: Legal Robot, Inc., a Delaware corporation (the "Company")

Securities: Series A Preferred Stock (the "Series A Preferred")

Valuation of the Company: \$5,000,000

Andrew, please clarify if this is pre-money a month ago by Dan Rubins



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Section Number

Section Header

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Email

Date

Party

Code Citation

Case Citation

Internal Reference

Defined Term

Split Section

Remove

Source

Complexity: 2nd year college

Highlight

Measure	Level	Score
Automated Readability Index	2nd year college	13.68
Flesch-Kincaid Grade Level	2nd year college	13.53
Gunning-Fog Index	3rd year college	14.83
SMOG Grade	1st year college	13.00

Other Complexity Measures:

Measure	Score
Coleman-Liau Index	10.33
Dale-Chall Readability Score	7.63
Flesch Reading Ease	45.44
Spache Readability Index	5.41

Summarization of parenthetical descriptions: Casetext (casetext.com)

Filter and narrow

Search within...

 Facts and legal issues
Powered by CARA A.I.

Cases 3,775

Holdings 101

Black Letter Law 1

Statutes 1

Briefs 68

Analyses 7

All State 186

All Federal 3,645

Select Courts

3,775 Cases analyzed and ranked by CARA A.I.

Results contextualized to  DoubleLine v. Odebrecht -pdf and your search terms

In re Braskem S.A. Sec. Litig.

246 F.Supp.3d 731 (S.D.N.Y. 2017) Cited 6 times 3 Legal Analyses

Noting that statements touting company's "commitment to transparency and good corporate governance practices," "trustworthy culture," "commitment to integrity," and "compliance with the laws," were the type of statements that courts around the country "have consistently held to be inactionable"

...defendants—Braskem, Odebrecht, and Fadigas. C. **Loss Causation** To state a claim for securities fraud under § 10(b) and Rule 10b-5, plaintiffs must also adequately plead **loss causation**. Stoneridge Inv. Partners, LLC, 552...

...plead **loss causation**, i.e., that revelation of the undisclosed bribery scheme caused Braskem's stock to drop. The Court, therefore, rejects defendants' claim that the SAC fails to plead **loss causation**. D...

In re Banco Bradesco S.A. Sec. Litig.

1:16-cv-4155-GHW (S.D.N.Y. Sep. 29, 2017) 1 Legal Analyses

...of a security; (4) reliance upon the misrepresentation or omission; (5) economic loss; and (6) **loss causation**. "GAMCO Investors, Inc. v. Vivendi Universal, S.A., 838 F.3d

What uses for Judges

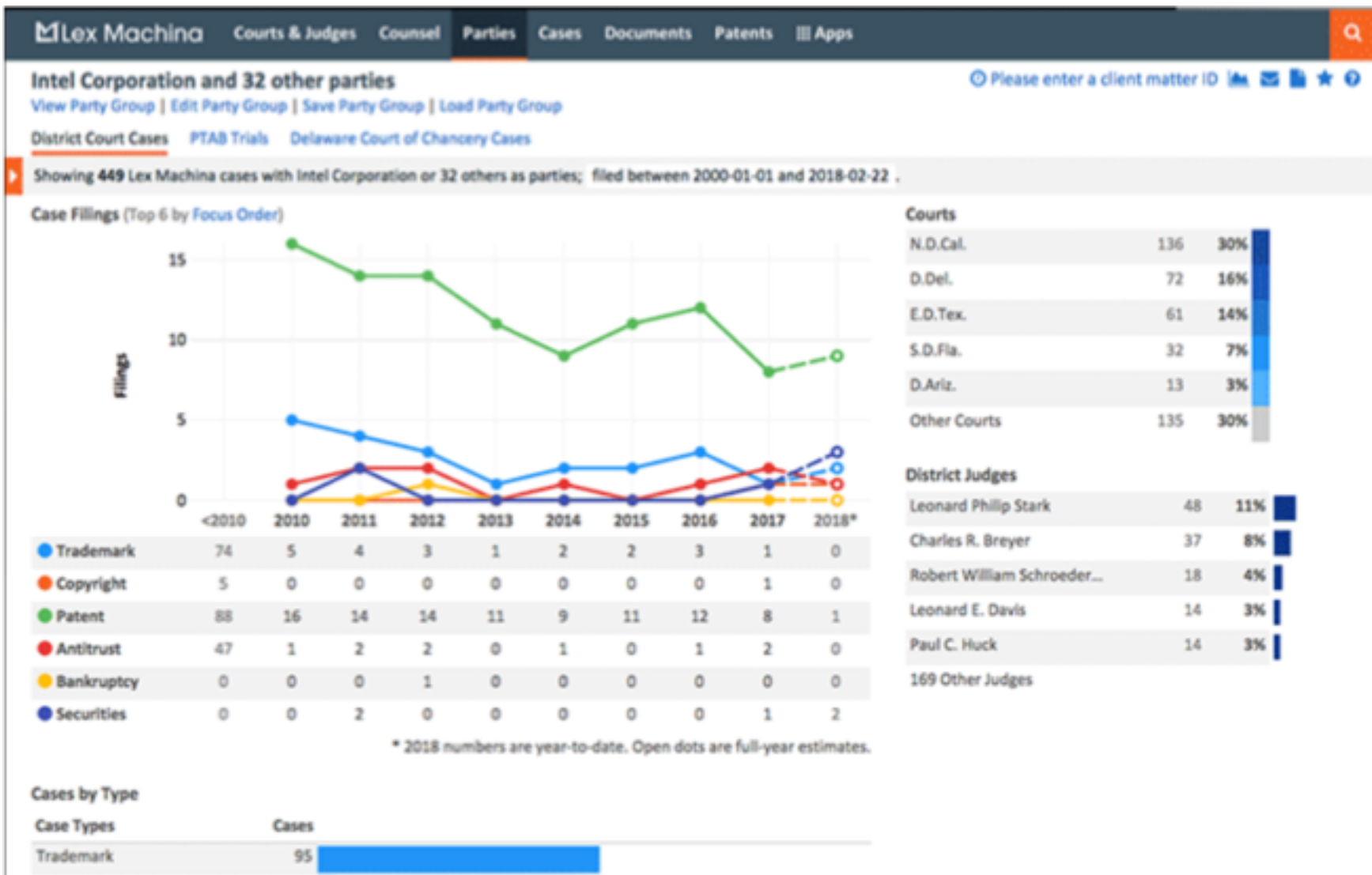
Such systems may be used to get better and quicker knowledge of cases, but also to improve and speed-up drafting

- Selection of most significant bits of previous cases
- Reuse of portion of previous documents in new ones
- Better use of precedents
- Potential for improving readability of judicial decisions

2. Case-oriented approaches – Predictive systems

- Focused on the significant characteristics of cases considered as a whole, such as duration, costs, and potential awards or punishments, and probability of success of claims, motions, or other pleadings.
- An area of particular interest is **litigation assistance** (i.e. providing information to improve probability of success at trial). Based on **predictive systems** dealing with:
 - Factors unrelated to the merits of the case, such as the nature of the suit, attorneys, forum, judge, parties, etc.
 - Factors related to the merits of the case, such as lexical features, events, narratives, procedural history, etc.

Predictive systems for legal advice: Lexmachina (lexmachina.com)

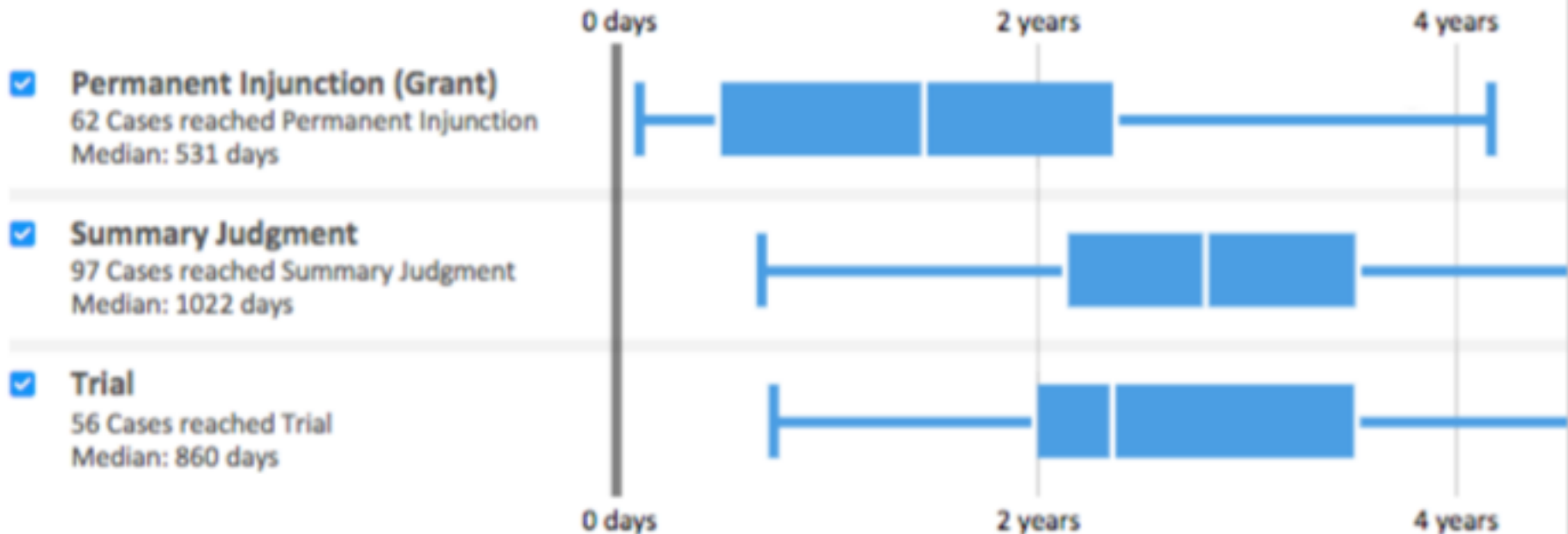


Predictive systems for legal advice: Lexmachina (lexmachina.com)

District Judge Leonard Philip Stark

of the U.S. District Court for the District of Delaware **D.Del.**

Summary Timing Law Firms Case Resolutions Damages Findings



Predictive systems for legal advice: Ravel Law (ravellaw.com)

Enter keywords, case name, or case number

Lucy Haeran Koh
U. S. District Court, Northern District of California (2010 - present)

Filter Judge by Keywords
Search with keywords

Judges Citing Similar Cases
None to display

Opinions Authored
by Lucy Haeran Koh

Sort by: **date**

Case Name	Cases	Year
HERNANDEZ-OREGEL v. U.S.	20 cases	2015
RODRIGUEZ v. LEHIGH SOUTHWEST CEMENT COMPANY	11 cases	2015
RICKLEFFS v. WARD	10 cases	2015
AIRWAIR INTERNATIONAL LTD. v. SCHULTZ	3 cases	2015
NORDBY CONSTRUCTION, INC. v. AMERICAN SAFETY INDEMNITY COMPANY	43 cases	2015
NATIONWIDE BIWEEKLY ADMINISTRATION, INC. v. OWEN	31 cases	2015
UTTERKAR v. EBIX, INC.	29 cases	2015
BRESAZ v. COUNTY OF SANTA CLARA	33 cases	2015
BAY HOME PRESERVATION SERVICE v. NGUYEN	7 cases	2015
TAKEDA PHARMACEUTICAL CO., LTD. v. TWIN PHARMACEUTICALS, INC.	6 cases	2015

Opinions Cited
in opinions authored by Lucy Haeran Koh

Sort by: **cited**

Case Name	Cases	Year
LOPEZ v. SMITH	148 cases	2000
CELOTEX CORP. v. CATRETT	119 cases	1986
BALISTRERI v. PACIFICA POLICE DEPT.	105 cases	1990
MANZAREK v. ST. PAUL FIRE & MARINE INS. CO.	100 cases	2008
FOMAN v. DAVIS	87 cases	1962
ADAMS v. JOHNSON	86 cases	2004
FAYER v. VAUGHN	83 cases	2011
ANDERSON v. LIBERTY LOBBY, INC.	81 cases	1986
CARVALHO v. EQUIFAX INFORMATION SERVICES, LLC	81 cases	2010
WESTERN MIN. COUNCIL v. WATT	80 cases	1981

Judges Cited
in opinions authored by Lucy Haeran Koh

Circuits Judges

Judge	Cases
Betty Binns Fletcher	364
Michael Daly Hawkins	331
William Hubbs Rehnquist	327
Anthony McLeod Kennedy	241
Ronald Murray Gould	240
Stephen Roy Reinhardt	226
John Clifford Wallace	188
Lewis Franklin Powell	187
William A. Fletcher	184
Atsushi Wallace Tashima	181
Byron Raymond White	180
Antonin Scalia	169
N[orman] Randy Smith	168

Ross: IBM Watson as a lawyer (rossintelligence.com)

The screenshot shows the Ross AI legal research tool interface. At the top, the 'ROSS' logo is on the left, and navigation links for 'WHAT IS ROSS?', 'EVA', 'PRACTICE AREAS', 'ABOUT', 'BLOG', and 'WHITEPAPER' are in the center. On the right, there are 'LOGIN' and 'GET STARTED' buttons. The main heading is 'AI Meets Legal Research', followed by a sub-heading: 'ROSS is an advanced legal research tool that harnesses the power of artificial intelligence to make the research process more efficient.' Below this is a prominent 'GET STARTED' button. A search input field contains the text 'In New York, in order to be patentable...'. Below the search bar, three document cards are shown, representing search results. The footer of the interface features logos for 'KOBRE & KIM', 'BakerHostetler', 'WOMBLE BOND DICKINSON', 'VH', and 'JA'.

IBM Watson

ROSS is based on IBM Watson

- Trained on the correlation between questions and answers on the basis of a vast data-sets of specific domain informations. The system can apply this knowledge to analyse new input questions and generate new possible candidate answers through a broad search on large volumes of contents.
- For each candidate answer a new hypothesis is generated.
- For each hypothesis, DeepQA tries to find evidence supporting or refuting it.
- The process results in a ranked list of candidate answers with a specific confidence score.
- The system self-updates, when new information is made available



ROSS: areas of application

AI Legal Search Engine: accepts questions in plain English and returns answers based on legislation, case law, and other sources.

- It also monitors new materials added to the corpus that may be relevant to a user's previous queries.
- As users submit new versions of a question, the system forms new links between them and its pre-stored answer. In this way, Ross learns from user feedback.

Brief Analyzer (EVA): automated analysis of briefs

- The system processes the brief, creating hyperlinks to every case cited in the brief; the system can also check the subsequent history of cited cases, and find cases having similar language as the brief

Answers

History

All Saved Cases

New Folder

Pyramid Co.

Slick Aviation

Yellowworks

Pinkpaw

Ask your Legal Research Question

In New York, what is secondary liability with respect to copyright infringement and how is it established?

Follow this question

Intellectual Property

Ask

Answers

Sort by: Most Relevant Filters: Applied

Arista Records LLC v. Usenet.com, Inc.

Dist. Ct. S.D. N.Y. | June 29, 2009 | 633 F.Supp.2d 124

... Contributory **copyright infringement** " is a form of **secondary liability** with roots in tort-law concepts of enterprise **liability** and imputed intent." Perfect 10, Inc. v. Visa Int'l Serv. Ass'n, 494 F.3d 788, 794-95 (9th Cir.2007), cert. denied, ___ U.S. ___, 128 S.Ct. 2871, 171 L.Ed.2d 811 (2008). A party is liable for contributory **infringement** if, " with knowledge of the **infringing** activity," it " induces, causes, or materially contributes to the **infringing** conduct of another." Gershwin Publ'g ... read case →

3 highlighted passages inside

Save Copy Citation

Helpful Not Helpful

Metro-Goldwyn-Mayer Studios Inc. v. Grokster, Ltd.

Sup. Ct. | June 26, 2005 | 545 U.S. 913, 125 S.Ct. 2764, 162 L.Ed.2d 781

... Despite the currency of these principles of **secondary liability**, this Court has dealt with **secondary copyright infringement** in only one recent case, and because MGM has tailored its principal claim to our opinion there, a look at our earlier holding is in order. In Sony Corp. v. Universal City Studios, supra, [125 S.Ct. 2777] this Court addressed a claim that **secondary liability** for **infringement** can arise from the very distribution of a commercial product. There, the product, novel at the time ... read case →

3 highlighted passages inside

Save Copy Citation

Helpful Not Helpful

Agence France Presse v. Morel

Dist. Ct. S.D. N.Y. | May 20, 2013 | 934 F.Supp.2d 584

... **secondary liability**, a **copyright** holder need not join all **infringers** as defendants in order for the Court to consider the actions of the non-party **infringers** in determining where, within the permissible scale, a statutory damages award should fall. See, e.g., Arista Records LLC v. Usenet.com, Inc., No. 07 Civ. 8822 (HB) (THK), 2010 WL 3629688, at *5 (S.D.N.Y. Feb. 2, 2010) (during an inquest on damages, after granting summary judgment in plaintiff's favor on direct and **secondary liability**, the court ... read case →

4 highlighted passages inside

ROSS Brief Analyzer: List of Negatively Treated Cases

42 Cases with Negative Treatments

CASE NAME	CASE STATUS
Patterson v. McLean Credit Union, 491 U.S. 164, 109 S.Ct. 2363, 105 L.Ed.2d 132, 57 U.S.L.W. 4706 (U.S. 1989)	Superseded
J. I Case Co. v. Borak, 377 U.S. 426, 84 S.Ct. 1555, 12 L.Ed.2d 423 (U.S. 1964)	Overruled
Hunter v. Allis-Chalmers Corp., Engine Div., 797 F.2d 1417 (7th Cir. 1986)	Overruled
Patterson v. American Tobacco Co., 535 F.2d 257 (4th Cir. 1976)	Vacated
Jordan v. State ex rel. Department of Motor Vehicles & Pub. Safety, 110 P.3d 30, 121 Nev. 44 (2005)	Overruled
Gersman v. Group Health Ass'n, Inc., 931 F.2d 1565 (D.C. Cir. 1991)	Vacated
Warth v. Seldin, 422 U.S. 490, 95 S.Ct. 2197, 45 L.Ed.2d 343 (U.S. 1975)	Superseded
Harris v. Forklift Systems Inc., 510 U.S. 17, 114 S.Ct. 367, 126 L.Ed.2d 295, 62 U.S.L.W. 4004 (U.S. 1993)	Overruled
Grubb v. W. A. Foote Memorial Hospital Inc., 533 F.Supp. 671 (D. Mich. 1981)	Modified
Leatherman v. Tarrant County Narcotics, 507 U.S. 163, 113 S.Ct. 1160, 122 L.Ed.2d 517, 61 U.S.L.W. 4206 (U.S. 1993)	Criticized
Rowlett v. Anheuser-Busch, Inc., 832 F.2d 194 (1st Cir. 1987)	Criticized
Jones v. Alfred H. Meyer Co., 392 U.S. 409, 88 S.Ct. 2186, 20 L.Ed.2d 1189 (U.S. 1968)	Criticized
Johnson v. Railway Express Agency, Inc., 421 U.S. 454, 95 S.Ct. 1716, 44 L.Ed.2d 295 (U.S. 1975)	Criticized

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ROSS Brief analyzer: similar language

ROSS

Highlighted Language:

... In upholding that result, this Court stressed that the inevitable discovery doctrine is "closely related" to the independent source doctrine ...

Top Results for Similar Language:

State v. Cook

Idaho Ct. App. | February 8, 1984 | 677 P.2d 522, 106 Idaho 209

... Inevitable **discovery** occupies an uncertain place in this mosaic. Although called a third exception to the exclusionary rule, in reality it extends the concept of an **independent source** to cover hypothetical--rather than actual--sources of evidence. Thus, under the **inevitable discovery doctrine**,

... read case →

1 highlighted passage inside

Smith v. State

Alaska | November 21, 1997 | 948 P.2d 473

... In this case we are called upon to decide whether evidence obtained illegally may be admissible under the "inevitable discovery" or "independent source" exceptions to the exclusionary rule. We hold that the "independent source" exception does not apply, and remand the case for consideration of the ... read case →

3 highlighted passages inside

State v. Jackson

Wis. | June 1, 2016 | 882 N.W.2d 422, 369 Wis.2d 673, 2016 WI 56

... [¶52] The **inevitable discovery doctrine** is not the same as the **independent source doctrine**, the Court explained, but it is "closely related" because evidence that inevitably will be discovered is like evidence from an **independent source**. * There is a functional similarity between these two ... read case →

2 highlighted passages inside

ROSS Brief analyzer: automated overview

The screenshot displays the ROSS Brief analyzer interface. A central popup window titled "Targeted Overview" is open, showing a summary of a legal text. The background is dimmed, showing a sidebar with navigation options like "Cite", "Save", and "Print", and a main content area with a "Generate Overview" button. The popup window contains the following text:

Targeted Overview

...The opinion settles upon the doctrine of inevitable discovery--a doctrine new to Idaho law. (p. 534)... Despite its uncertain ancestry, the nascent doctrine of inevitable discovery continued to attract adherents. (p. 536)... Thus, the Supreme Court neither endorsed nor eschewed the inevitable discovery doctrine. (p. 536)... However, several illustrative cases suffice to show why the doctrine should not be applied here. (p. 537)... These cases demonstrate that the doctrine of "inevitable discovery" is still struggling to establish a clear identity separate from the "independent source" doctrine. (p. 537)... We conclude that the doctrine of inevitable discovery need not, and should not, be invoked in this case. (p. 539)...

View Tips | Is this overview helpful? Yes No [Copy to Clipboard](#)

Below the popup, the main text of the document is visible, discussing the doctrine of inevitable discovery and its application in *Wong Sun v. United States*.

What uses for judges

Predictive systems anticipate the existing correlations between (sets of) features of cases and (1) decisions (2) factual forecasts

Systems linking features and decisions are predictive for lawyers, They enable lawyers

- To anticipate chances of success (possibly reducing litigation)
- To select or search for aspects of the case that increase chance of success
- To develop they arguments

Such systems may be useful for judges

- To have better awareness of trends in the case law
- To anticipate how a possible decision will stand in the context of the case law

Risks

Predictive systems - issues

Systems linking features and factual forecasts may be useful to the extent that judicial decisions may be based on future forecasts (e.g. social risks, social benefits):

- Problematic example: COMPASS (recidivism)

The next few statements are about what you are like as a person, what your thoughts are, and how other people see you. There are no 'right or wrong' answers. Just indicate how much you agree or disagree with each statement.

112. "I am seen by others as cold and unfeeling."
 Strongly Disagree Disagree Not Sure Agree Strongly Agree
113. "I always practice what I preach."
 Strongly Disagree Disagree Not Sure Agree Strongly Agree
114. "The trouble with getting close to people is that they start making demands on you."
 Strongly Disagree Disagree Not Sure Agree Strongly Agree
115. "I have the ability to "sweet talk" people to get what I want."
 Strongly Disagree Disagree Not Sure Agree Strongly Agree
116. "I have played sick to get out of something."
 Strongly Disagree Disagree Not Sure Agree Strongly Agree
117. "I'm really good at talking my way out of problems."
 Strongly Disagree Disagree Not Sure Agree Strongly Agree
118. "I have gotten involved in things I later wished I could have gotten out of."
 Strongly Disagree Disagree Not Sure Agree Strongly Agree
119. "I feel bad if I break a promise I have made to someone."
 Strongly Disagree Disagree Not Sure Agree Strongly Agree
120. "To get ahead in life you must always put yourself first."
 Strongly Disagree Disagree Not Sure Agree Strongly Agree

Cognitive computing legal apps

BRIDGING LEGAL TEXTS AND COMPUTATIONAL MODELS

- Use of ML to analyse legal documents
- Identify the portions of texts that contain the legal rules, legal holdings and findings of fact, arguments justifying conclusions, and explanations of reasons, as well as particular legal factors and evidence factors
- Support a cognitive computing collaboration with users. (Ashley 2017)

LUMINANCE (luminance.com)

- A complete platform for the analysis and automated annotation of legal documents, and anomaly detection

CLAUDETTE (CLAUse DETecTEr - claudette.eui.eu)

- An automated detector of unfair and unlawful clauses in online consumer contracts

Luminance: document annotation and anomaly detection

The screenshot displays the Luminance interface for document annotation and anomaly detection. The main document is titled "2003-09-25: Thoughtsphere Inc Customer Agreement.docx". The document text includes sections 17.10, 17.11, and 17.12, detailing governing law, change in control, and export restrictions. A red popup window titled "9.3 Additional Clause" is overlaid on the document, indicating that 9 of 1948 similar documents have an additional clause. The popup includes a list of additional clauses, with "Change Of Control" selected, and buttons for "Show Differences" and "Similar Anomalies". The right sidebar shows a navigation menu with categories like "Info", "Clauses", "Currencies", "Percentages", "Locations", "Governing Laws", "Dates", "Anomalies", and "Notes". The bottom status bar shows "9 of 12" and various navigation icons.

CLAUDETTE (claudette.eui.eu)

CLAUDETTE

An Automated Detector of Potentially Unfair Clauses

Claudette found 3 potentially unfair clauses (displayed in **bold**) out of 39 sentences.

By hovering your cursor over each unfair sentence, you can see the most likely unfairness category.

Limitation of Liability unfair clause

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5.3 HeinOnline shall not be liable for any loss, injury, claim, liability or damage of any kind resulting from the unavailability of the Database, interruption of the services provided hereunder, or arising out of or in connection with your use of the Database or Materials.

[...]

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[...]

6.2 Any controversy or claim arising out of or relating to this Agreement or the breach thereof, shall be settled by arbitration, including joint and/or consolidated arbitration where practicable, conducted in English, in Buffalo, New York, in accordance with the Commercial Arbitration Rules of the American Arbitration Association.

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