Artificial Intelligence & Law:
Through the Lens of IAAIL – Past, Present and Future

Jack G. Conrad, IAAIL President
15th International Conference on Artificial Intelligence and Law
University of San Diego School of Law
10 June 2015

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OUTLINE

- *AI and Law* – Perspectives from the Past

- The Role of *AI and Law* in Advancing the State of the Art
  - Challenges IAAIL well-suited for
  - Areas where IAAIL best to partner

- A Vision of the Future – A Path towards Progress

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Perspectives of Past IAAIL Presidents

- ICAIL 1997 – Edwina Rissland
  - *Legal Concepts through a Case-based Lens*
  - Royal Botanical Gardens, Melbourne
- ICAIL 2001 – Kevin Ashley
  - *Opportunities and Prospects for Intelligent Tutoring in Legal Education*
  - Washington University, St. Louis
- ICAIL 2003 – Trevor Bench-Capon
  - *Try to See It My Way: Persuasion in Legal Discourse*
  - Univ. of Edinburgh
- ICAIL 2005 – L. Karl Branting
  - *The Future of AI and Law*
 - Alma Mater Studiorum, University of Bologna

Perspectives of Past IAAIL Presidents

- ICAIL 2007 – Thomas F. Gordon
  - *20 Years of ICAIL: Reflection on the Field of AI and Law*
  - Stanford Law School
- ICAIL 2009 – Henry Prakken
  - *On Formal Models of Legal Argument*
  - Univ. Autònoma de Barcelona
- ICAIL 2011 – Giovanni Sartor
  - *Models of the Law in AI and Law*
  - Univ. of Pittsburgh
- ICAIL 2013 – Radboud Winkels
  - *25 Years of AI and Law*
  - Consiglio Nazionale della Riceche, Rome

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Progression

The Science
Behind AI
(Branting)

Future Growth,
Future Progress
(Conrad)
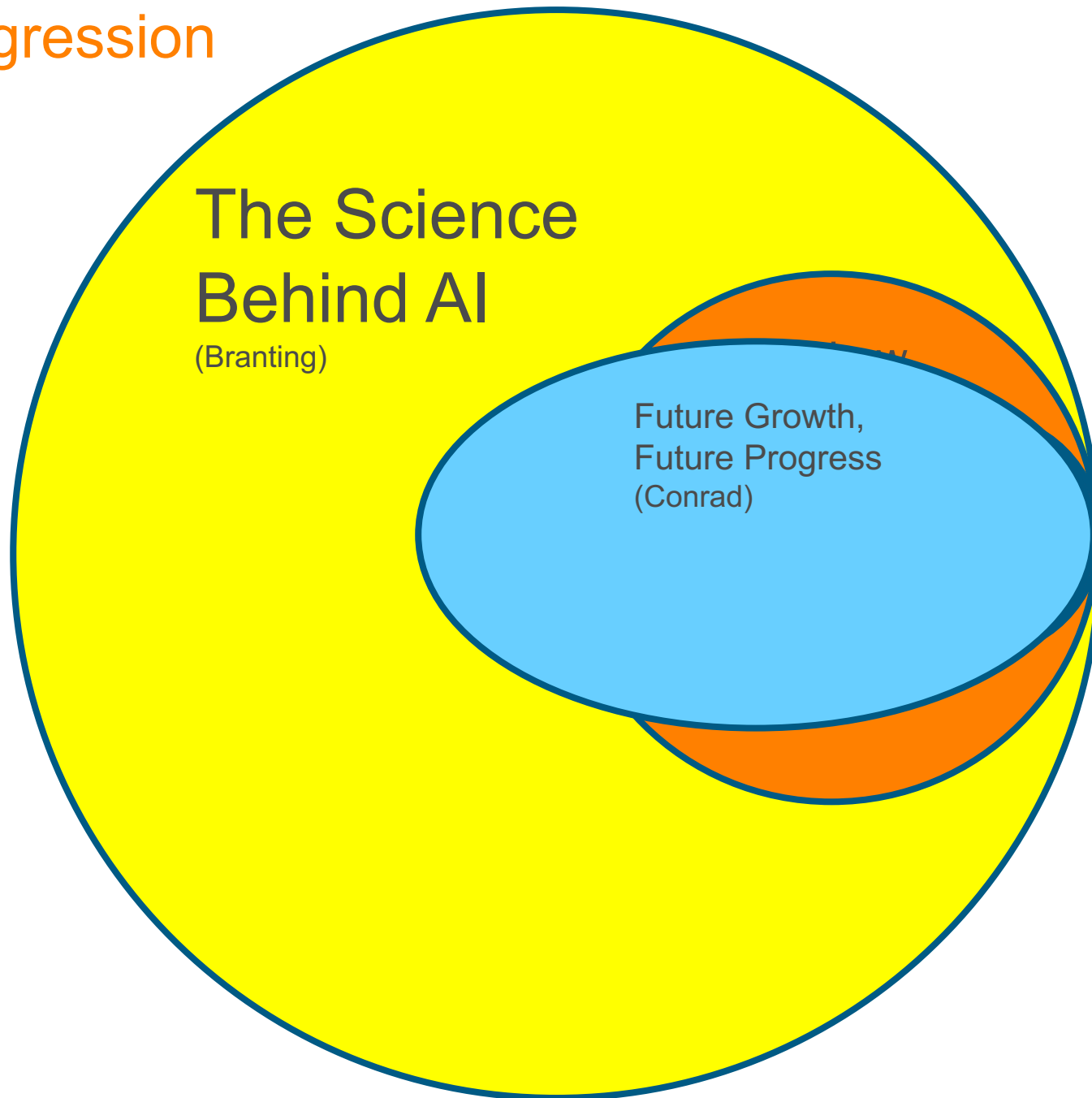
# "The Future of AI and Law" (Branting, 2005)

- Substance
  - The goals of our discipline and community
  - What we have already achieved
  - How we should focus our efforts to achieve our remaining goals
- Method
  - Identify lessons from the larger AI community
  - Apply those lessons to our community
- Scope: previous 18 years (since ICAIL 1987)
- Themes
  - Rigorous task analysis
  - Decomposition into independent sub-problems
  - Replicated empirical evaluation

Goals of the AI Discipline (Branting, 2005)

- A computational theory of the mind
- Automated agents with human-like social, learning and problem-solving characteristics
- Tools that solve problems using explicit knowledge that is
  - Expert
  - Common sense
  - Automatically acquired
- Shared research objectives, criteria, evaluation, and sources
- Literature stream embodying key research results

Examples of Successes (Branting)
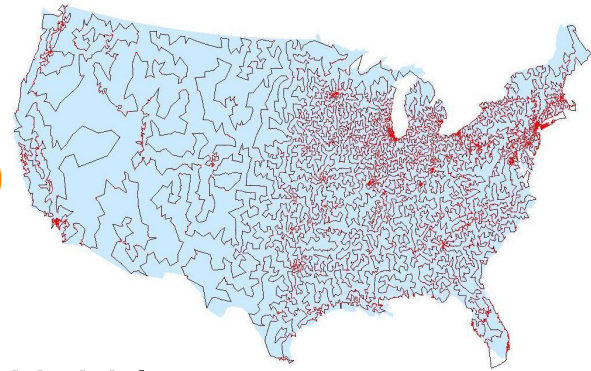
- Combinatorial search
  - E.g., 500 city traveling salesman problem, Hubble scheduling
- Human ability reached or exceeded
  - Chess, Backgammon, Othello, et al.
- Theorem proving
  - Robbins Conjecture by EQP
- NASA's Autonomous Robots
  - Deep Space One – handled unanticipated system failure
- Continuous Speech Understanding
  - HMM models + lexicon + sentence models
- Open Domain Question Answering (TREC)

Overview of the TREC-9 Question Answering Track

What Was Responsible for these Successes? (Branting)

- Witness the Wright Brothers amidst fierce competition
  - Decoupling and independently solving key problems
    - Lift vs. Flight Control vs. Propulsion
  - Less successful competitors tried to solve all problems at once
- Comparable Pieces for Open Question Answering included
  - Information retrieval
  - Text segmentation
  - POS tagging
  - Parsing (shallow & deep)
  - Word-sense disambiguation
  - Names entity recognition
  - Information extraction

Each sub-problem:
  - A well-defined task
  - Separate theoretical & empirical evaluation criteria
  - Separate literature

Due to balkanization, one must consult AI lit. to solve AI problems

How Far Have We Come Since 1987? (Branting, 2005)

- An examination of the beneficiaries of AI & Law technology
  - Citizens[*]
    - E-government has flourished
  - Attorneys[*]
    - + / - examples, proprietary legal expert systems, document drafting
  - Judges
    - Suspicion and resistance to many systems, e.g., sentencing systems
  - Juries
    - Seldom understand instructions – an opportunity for tutorial tools
  - Clerical staff
  - Legislators, regulatory rule makers
    - Source of active AI & Law research
  - Scholars (e.g., law professors, legal philosophers)
    - Little perceptible influence; AI & Law not recognized as contributing fruitful insights into jurisprudence

ICAIL is a Successful Forum (Branting, 2005)

- Less successful at standards, repositories, shared evaluation criteria

- Still less successful at embodying key research results
  - Commercial development largely *independent* of AI & law literature
  - Contrast speech understanding, data mining, planning, question answering, or robotics

- Note recent trends in ICAIL (2005 vs. 1987)
  - Number of applied papers ⬇
  - Number of Argumentation papers ⬆
  - Task analysis papers disappeared ⊘

Recommendations (Branting, 2005)

- Study legal discourse
- Return to task analysis (re: Open Question Answering EX)
- Attend Computational Linguistics conferences
  - Exploit developments in computational narrative theory
- Emulate the Wright Brothers
  - Decompose tasks into well-defined sub-problems
  - Rigorously evaluate alternative approaches to each sub-problem
- Develop techniques that are usable by commercial developers
- Develop corpora and data repositories
- Let disinterested domain experts judge models
  - But don't mistake models for the real thing
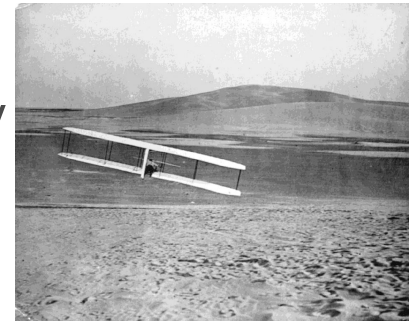
"20 Years of AI & Law": Have We Witnessed a Convergence in AI & Law?

- Legal Argumentation is the central topic of AI and Law

- Limitations of deductive and inductive logic

- Needed: normative models of argument and dialogue

- Legal philosophy failed to provide the necessary theoretical foundation for our field

- AI and Law, in collaboration with the field of Argumentation in Philosophy, is developing this theoretical foundation

- A unified theory of legal argument is beginning to emerge, as a result of this collaboration

Legal Argumentation is our Main Topic

- McCarty & Sridharan; "A Computational Theory of Legal Argument", 1982.

- "Experts can do more with the rules than follow them … lawyers can argue about the rules themselves." Gardner, 1987.

- Ashley, "Modeling Legal Argument: Reasoning with Cases and Hypotheticals", 1990.

- Prakken; "Logical Tools for Modeling Legal Argument", 1992.

- Loui & Norman; "Rationals and Argument Moves", 1995

- Verheij, "Rules, Reasons, Arguments", 1996

- Bench-Capon, et al.; "Dialectical Argument with Argument Games", 2000.

Tom Gordon, IAAIL Pres. Talk, ICAIL 2007

Basic Elements of the Unified Theory of Argument

- Argumentation Schemes
  - Argument from Rules
  - Argument from Cases
  - Argument from Ontologies
  - Argument from Evidence
  - Argument from Purpose and Policy
  - Argument from Values
- Dialogue Types and their Protocols
  - Administrative Procedures
  - Pleading, Trial
  - Appellate Court Proceedings
  - Arbitration
  - Negotiation
  - Deliberative Democracy (eParticipation)

Growth of the AI & Law Community

| 1975 n. Chr. | | 1980 n. Chr. | | 1985 n. Chr. | | 1990 n. Chr. | | 1995 n. Chr. | | 2000 n. Chr. | | 2005 n. Chr. |

Nitta

Schild

Yoshino

Waterman   Johnson   Aleven   van Engers

Bench-Capon   Sartor   Zeleznikow   Governatori

Susskind Skalak Breuker   Loui   Atkinson

Gardner   Ashley   Branting Lauritsen   Lodder   Hage   Walton

Hafner   Allen   Greenleaf Oskamp   Prakken   Winkels Brüninghaus   Palmirani Chorley

McCarty   Sergot Saxon   Jones   Kowalski McKaay Verheij Schweighofer Jackson Conrad Reed Caceres

Bing   Rissland Gordon Smith   Berman   Bourcier Leenes Stranieri Moens Boer Roth Gray Deprès

Tom Gordon,
IAAIL Pres.
Talk, ICAIL 2007

On the Need for Endurance and Patience

- It took 20 years for rule-based legal expert systems to become established … and they are still not widespread.

- It may take another 20 years for more advanced AI and Law method to succeed (CBR, conceptual retrieval, argumentation systems)

- We are tackling difficult problems which philosophy has failed to solve in over 2000 years.

- Non-deductive forms of reasoning have been largely neglected since the ancient Greeks.

- Only since the late 1950s, with the birth of the fields AI and Informal Logic, has work begun again in earnest.

"25 Years of AI & Law: ICAIL 1987-2013" (R. Winkels)

- Presented some current data and trends
  - Country with most ICAIL authors (1987 - 2013)
  - Acceptance rates ICAIL (1987 - 2011)
  - Authors with the most (2013)
  - ICAIL Topics 1997 / 2007
    - know

On Building Knowledge-based Systems (re: Leibniz)

- From Sources of Law to Formal Models
  - World vs. Normative Knowledge
  - Other types of knowledge representation
  - Structures of representing law vs. problems w/ world knowledge

- The Larger Problem
  - Context of Task (Agent perspective)
  - Tools integrated with Methodology
  - Trade offs exist

- Still hard to find business cases for LKBS
  - Simpler prerequisites may exist: information management

The Research Paradox within IAAIL/ICAIL (Winkels)

- The kind of research needed by society and in practice seems to correlate negatively with our research endeavors.

  – Hypothesizes, may be caused by the fact that our research pursues "legally interesting" problems instead of practically interesting ones.

  – May explain sub-optimal levels of evaluation present across certain ICAIL works

  – Also hard to evaluate legally interesting problems since often there exists no golden standard

- How to address this paradoxical situation?

  – Design an AI & Law Challenge …

    - Predict future developments

    - Argumentation game of humans vs. machine

    - Solve the story interpretation challenge
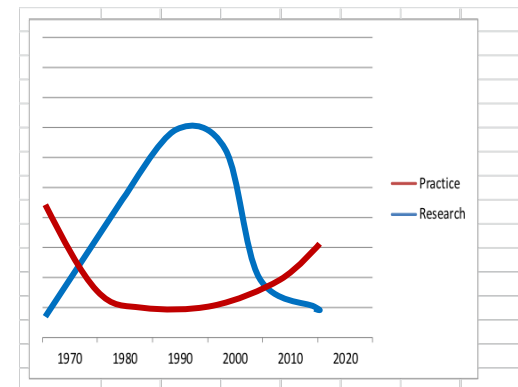
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Where IAAIL Can Learn from/Partner w/ Industry

- Legal Search Systems – 1995 vs. 2015

- Expert Search – a study in leveraging evidence

- Performance Results

- Lessons Learned

WHAT MAKES STATE OF THE ART LEGAL SEARCH?

- Q: What differentiates a state-of-the-art legal search engine in 2015 from its predecessor in 1995?

- A: The breadth (diversity) and depth (detail) of the evidence from the candidate documents examined

  - Demonstrates the value and strength of human annotations
  - Traditionally present, but not exploited by computer-assisted search
  - Illustrated through a running example

REQUIREMENTS OF LEGAL SEARCH

- The completeness requirement (Recall)
  - Misses can have significant consequences
    - Less redundancy than on the Web

- The accuracy requirements (Precision)
  - A high frequency of relevant docs in top results is essential
    - Time is money ….. literally

- The authority requirement
  - Need governing authorities
  - That have not been superseded, overruled, or disagreed with on the relevant issues.

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Long Arm Jurisdiction

CA, U.S. SCT SEARCH advanced

Khalid's Research (1)

Burger King Corp. v. Rudzewicz
Supreme Court of the United States May 20, 1985 471 U.S. 462 105 S.Ct. 2174

Document | Filings (3) | Negative Treatment (98) | History (4) | Citing References (41,864) Powered by KeyCite

Return to list ◀ 2 of 541 results ▶ ◀ Search term ▶

Go to ▾ 🔍 ▾ AA 📝 ▾

Disagreement Recognized by TXU Energy Retail Co., LP v. Emanuel Medical Center, Inc., N.D.Tex., May 28, 2003

Original Image of 471 U.S. 462 (PDF)

105 S.Ct. 2174
Supreme Court of the United States

BURGER KING CORPORATION, Appellant

v.

John RUDZEWICZ.

No. 83-2097. | Argued Jan. 8, 1985. | Decided May 20, 1985.

Franchisor brought action against franchisee alleging breach of franchise obligations and trademark infringement. The United States District Court for the Southern District of Florida entered judgment in favor of franchisor and franchisee appealed. The Court of Appeals for the Eleventh Circuit, 724 F.2d 1505, reversed and denied rehearing, 729 F.2d 1468. The Supreme Court, Justice Brennan, held that: (1) where it was not clear that Court of Appeals had found Florida long-arm statute unconstitutional as applied, Supreme Court did not have jurisdiction over appeal; (2) jurisdictional statement would be treated as petition for writ of certiorari; and (3) exercise of long-arm jurisdiction over Michigan franchisee in Florida did not offend due process.

Reversed and remanded.

Justice Stevens dissented and filed an opinion in which Justice White joined.

West Headnotes (27)

Change View

1 **Federal Courts**
Where it was unclear whether Court of Appeals actually held statute unconstitutional as applied to the circumstances of the case, jurisdiction did not properly lie in the Supreme Court by appeal and appeal would be dismissed, with the jurisdictional statement treated as a petition for writ of certiorari, which would be granted. 28 U.S.C.A. § 1254(2).

170B Federal Courts
170BVII Supreme Court
170BVII(B) Review of Decisions of Courts of Appeals

RELATED TOPICS

Federal Courts

Venue

Purposes of State Long Arm Statute Phrase Ransacts

Personal Jurisdiction of Non-Resident Defendant

In Personam Jurisdiction of Defendant Requires Due Process of Law

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Burger King Corp. v. Rudzewicz
Supreme Court of the United States   May 20, 1985   471 U.S. 462   105 S.Ct. 2174

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West Headnotes (27)   A Headnote is a legal issue   A Key Number is a topic code   Change View

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3 Cases that cite this headnote

170B	Federal Courts
170BVII	Supreme Court
170BVII(B)	Review of Decisions of Courts of Appeals
170Bk453	Proceedings to Obtain Writ

2   **Federal Courts**
Parties cannot stipulate to a particular construction of state law, and thereby obtain jurisdiction over appeal to Supreme Court, where state law might, in fact, be in harmony with the Federal Constitution; Supreme Court's jurisdiction is properly invoked only where a Court of Appeals has squarely held that the statute is unconstitutional on its face or as applied and jurisdiction does not lie if the decision might rest on other grounds. 28 U.S.C.A. § 1254(2).

170B	Federal Courts
170BVII	Supreme Court
170BVII(B)	Review of Decisions of Courts of Appeals
170Bk455	Decisions Reviewable and Grounds for

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WestlawNext™   Long Arm Jurisdiction   CA, U.S. SCT   **SEARCH**   advanced   Khalid's Research (1)

Burger King Corp. v. Rudzewicz
Supreme Court of the United States   May 20, 1985   471 U.S. 462   105 S.Ct. 2174

| Document | Filings (3) | Negative Treatment (98) | History (4) | Citing References (41,864) | Powered by KeyCite |

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-Arm Jurisdiction in General

170Bk76.5   Contacts with Forum State

20   Federal Courts
Parties' negotiations and contemplated future consequences, along with the terms of the contract and the parties' actual course of dealing, must be evaluated in determining whether the defendant has purposefully established minimum contacts with the forum.

170B	Federal Courts
170BII	Venue
170BII(A)	In General
170Bk76	Actions Against Non-Residents; **"Long-Arm" Jurisdiction** in General
170Bk76.30	Contract Cases

2254 Cases that cite this headnote   Cited 2254 times. Issue based citation network

21   Federal Courts
Michigan franchisee who deliberately reached out beyond his state of residence and negotiated with a Florida franchisor for purchase of a long-term franchise and the manifold benefits that would derive from affiliation with the nationwide organization, who entered into a carefully structured 20-year relationship which envisioned continuing and wide-reaching contacts with Florida, who accepted regulation of his business from the Miami headquarters of the franchisor, and who was required to make monthly payments to the franchisor in Miami was constitutionally subject to **long-arm jurisdiction** in Florida in dispute arising out of the franchise arrangement. West's F.S.A. § 48.193(1)(g); U.S.C.A. Const.Amend. 14.

170B	Federal Courts
170BII	Venue
170BII(A)	In General
170Bk76	Actions Against Non-Residents; **"Long-Arm" Jurisdiction** in General
170Bk76.30	Contract Cases

476 Cases that cite this headnote

22   Federal Courts
Although choice-of-law provision on a contract, standing alone, would be insufficient to confer **jurisdiction** in forum whose law is to apply, choice-of-law provision should not be ignored in considering whether defendant has purposefully invoked the benefits and protections of a state's law.

170B	Federal Courts
170BII	Venue
170BII(A)	In General
170Bk76	Actions Against Non-Residents; **"Long-Arm" Jurisdiction** in General
170Bk76.30	Contract Cases

99 Cases that cite this headnote

- Burger King Corp. v. Rudzewicz - WestlawNext - Windows Internet Explorer

tps://a.next.westlaw.com/RelatedInformation/If5bec6219c1f11d9bdd1cfdd544ca3a4/CitingReferences.html?originationContext=documentTab&transitionType=CitingReferences&contextData=(sc.Search)&docSource=75t

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Long Arm Jurisdiction   CA, U.S. SCT   **SEARCH** advanced   Khalid's Research (1)

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KeyCite.   **Citing References (41,864)**   1-20   Sort By: Depth: Highest First   No items selected

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Cases	10,610
Administrative Decisions & Guidance	67
Administrative Filings	3
Secondary Sources	2,678
Appellate Court Documents	5,112
Trial Court Documents	23,359
IP Filing Rules	33
Arbitration Awards	2
All Results	41,864

NARROW

Select Multiple Filters

Search within results

Access additional filters by choosing a content type (e.g. Cases).

	Treatment	Title	Date	Type	Depth	Headnote (s)
☐	Declined to Extend by NEGATIVE	1. Chloe v. Queen Bee of Beverly Hills, LLC	Aug. 05, 2010	Case	▬▬▬	5 S.Ct.
		616 F.3d 158, 165+ 2nd Cir.(N.Y.)				
		TRADEMARKS - Jurisdiction. Competitor's employee was subject to personal ... [in] handbag seller's trademark infringement suit.				
☐	Declined to Extend by NEGATIVE	2. HealthMarkets, Inc. v. Superior Court	Mar. 09, 2009	Case	▬▬▬	5 8 11 S.Ct.
		90 Cal.Rptr.3d 527, 532+, Cal.App. 2 Dist.				
		BUSINESS ORGANIZATIONS - Jurisdiction. Foreign company did not purposefully direct activities of subsidiary toward California as required for jurisdiction.				
☐	Declined to Extend by NEGATIVE	3. Marriott PLP Corp. v. Tuschman	Oct. 30, 1995	Case	▬▬▬	9 16 S.Ct.
		904 F.Supp. 461, 465+, D.Md.				
		Limited partnership, general partner, and corporation that was limited partner, sued individual limited partner, seeking declaratory judgment that it did not commit fraud, or...				
☐	Declined to Extend by NEGATIVE	4. Sutherland v. Brennan	Sep. 08, 1995	Case	▬▬▬	9 16 20 S.Ct.
		901 P.2d 240, 245+, Or.				
		Personal Jurisdiction. Making several telephone calls to forum state was not sufficient minimum contacts to allow for personal jurisdiction.				
☐	Distinguished by NEGATIVE	5. ChemRisk, LLC v. Chappel	May 12, 2011	Case	▬▬▬	19 21 S.Ct.
		2011 WL 1807436, *3+, N.D.Cal.				

Declined to Extend by (Negative)

Level of discussion

'Views' Available to Search & Reranking Functions

Search Engine (Text Similarity +**)**

Key Cite (which legal issue, and is it still good law?)

Judges, West editors and Westlaw users have generated a wealth of information. When combined with domain expertise and technology resources, R&D can build a best of breed solution

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Text —

Cases, Briefs, Statutes, Regulations, Law Reviews …

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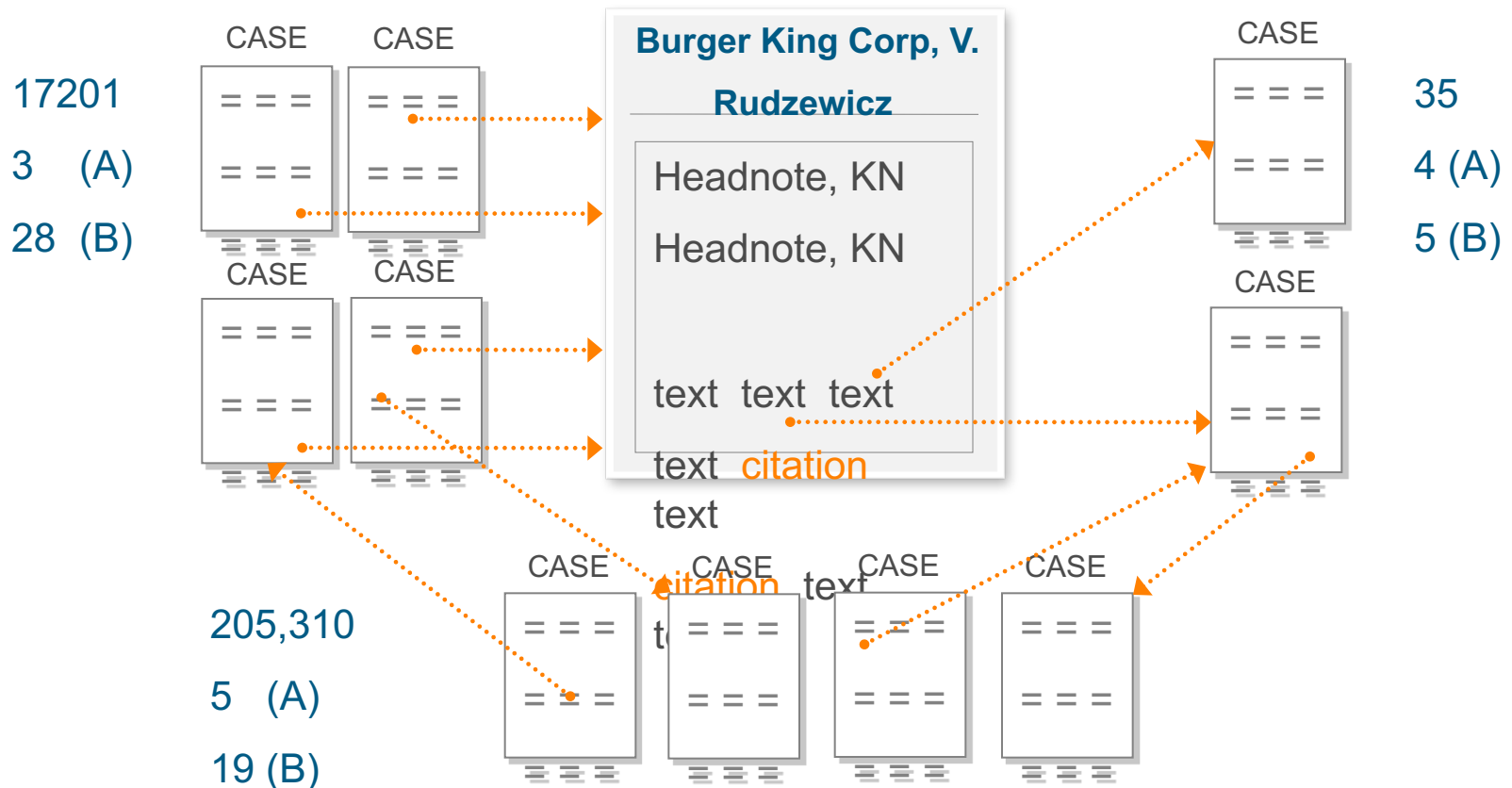Key Cite (which legal issue, and is it still good law?)

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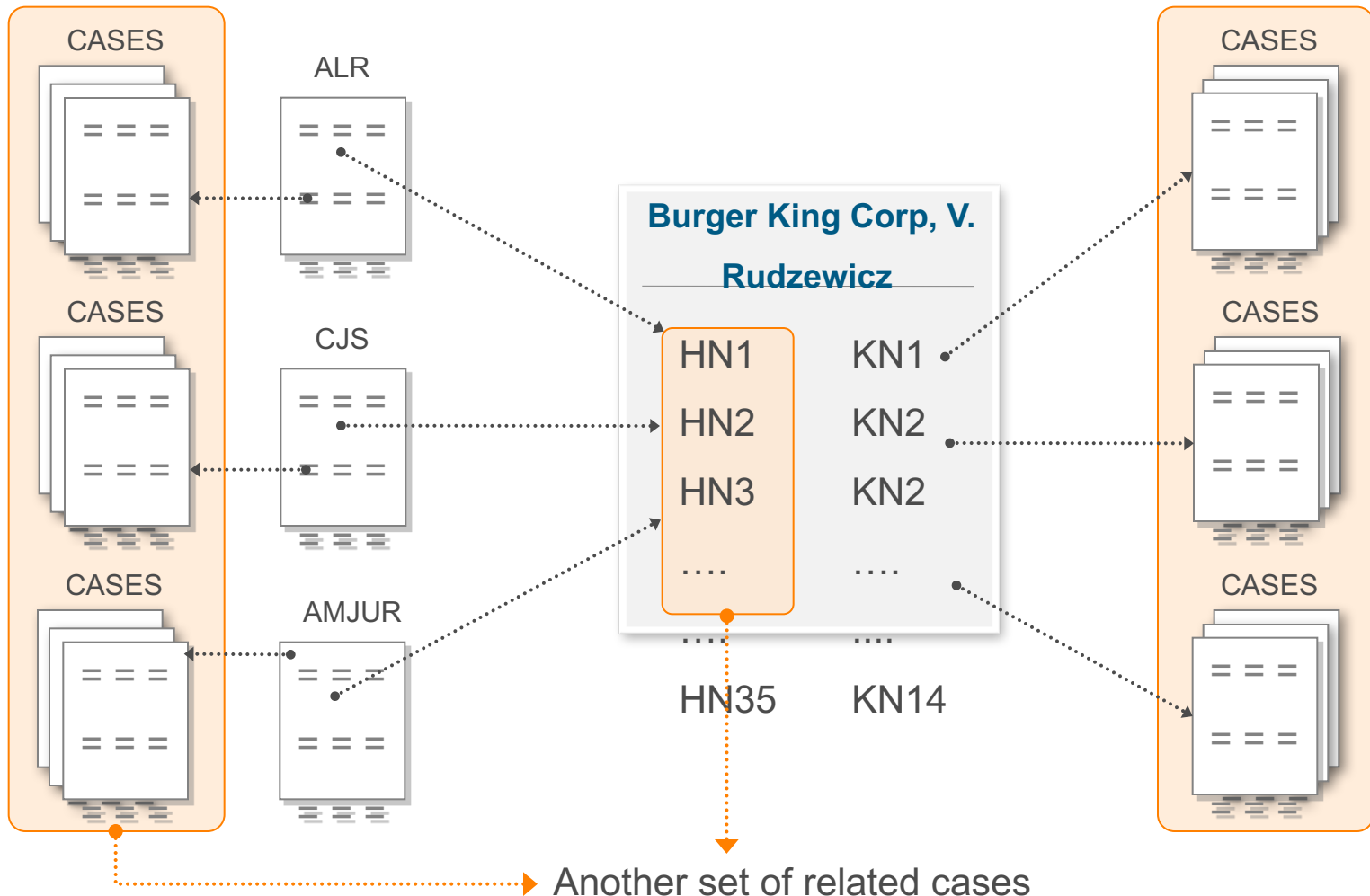
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Text — Cases, Briefs, Statutes, Regulations, Law Reviews …	Synopses Points of Law (Headnotes) Taxonomy Classifications (Topic + Key No.)	Citations In-bound (citing) and Out-bound (cited) Topic-based granularity	Queries Session Data Clicks, Prints, KeyCite, … Preferences

Search Engine (Text Similarity +)

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SOURCES OF EVIDENCE:
AUTHORS, EDITORS & PRACTITIONERS

CASE   CASE

17201

3   (A)

28 (B)

CASE   CASE

Burger King Corp, V. Rudzewicz

Headnote, KN

Headnote, KN

text text text

text citation

text

citation text

t

CASE   CASE   CASE   CASE

205,310

5   (A)

19 (B)

CASE

35

4 (A)

5 (B)

CASE

Issue: Long arm jurisdiction

12   A   (Key Cases)
54   B   (Highly Relevant)

THOMSON REUTERS RESEARCH & DEVELOPMENT

SOURCES OF EVIDENCE: AUTHORS, EDITORS & PRACTITIONERS

SOURCES OF EVIDENCE: USERS (I)

Link query language to document language via click, print, and cite checking behaviors

Identify documents that are co-clicked, co-printed, etc, with the Burger King case across user sessions

SOURCES OF EVIDENCE: USERS (II)

IN 3 MONTHS

QUERY 1

"personal jurisdiction"   176
"minimum contacts"   50
"forum selection clause"   39
"foreign jurisdiction"   39
"forum non conveniens"   32
"choice of law"   29

QUERY N

Burger King Corp, V. Rudzewicz

Original breach of contract and trademark infringement case turned into a civil procedure case about jurisdiction on appeal

SESSION 1

CLICK   **ACTIONS**

CASES

SESSION N

PRINT   **ACTIONS**

CASES

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THE RANKING PROBLEM (PRECISION)

1 **A**

- Supervised Machine Learning

  2 **C**

  – Iteratively retrieve and rank documents

  3 **F**

  – Incorporate all available cues: text similarity, classifications, citations, user behavior and query logs

  4 **B**

  – All of this requires lots of data!

- Training & Validation

  5 **A**

  – Gold data: hand-crafted research reports covering a variety of legal issues

  – Report contains an issue statement, multiple queries, *all* seminal, highly relevant documents, some relevant docs

    - > 100K documents judged against ~400 legal issues

  – System was also tested by an independent 3rd party
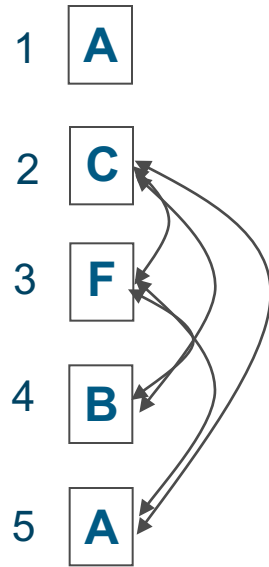
LESSONS LEARNED

- Understand the domain and the data

- Leveraging human value addition is key
  - None of the human actors set out to improve search

- Vertical search is not just about search
  - It's about findability
    - Includes navigation, recommendations, clustering, faceted classification, collaboration, etc.
  - It's about satisfying a set of well-understood tasks
    - Usually on enhanced content, for expert customers

- Difficult to design complete solution upfront
  - Need platform for experimentation and validation at scale

OUTLINE

- *AI and Law* – Perspectives from the Past

- The Role of *AI and Law* in Advancing the State of the Art
    - Challenges IAAIL well-suited for
    - Areas where IAAIL best to partner

- A Vision of the Future – A Path towards Progress

OUTLINE

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Present Trends, Future Implications

There is certainly an important role to play in AI and Law for traditional research topics like argumentation, but if we fail to acknowledge the major trends now taking place in the field involving big data, machine learning, data mining, knowledge graphs and related technologies, major developments may pass us by and we run the risk of becoming a research community of little practical significance.

-- L. Karl Branting, May 2015

Activities in the Legal Startup Space (I)
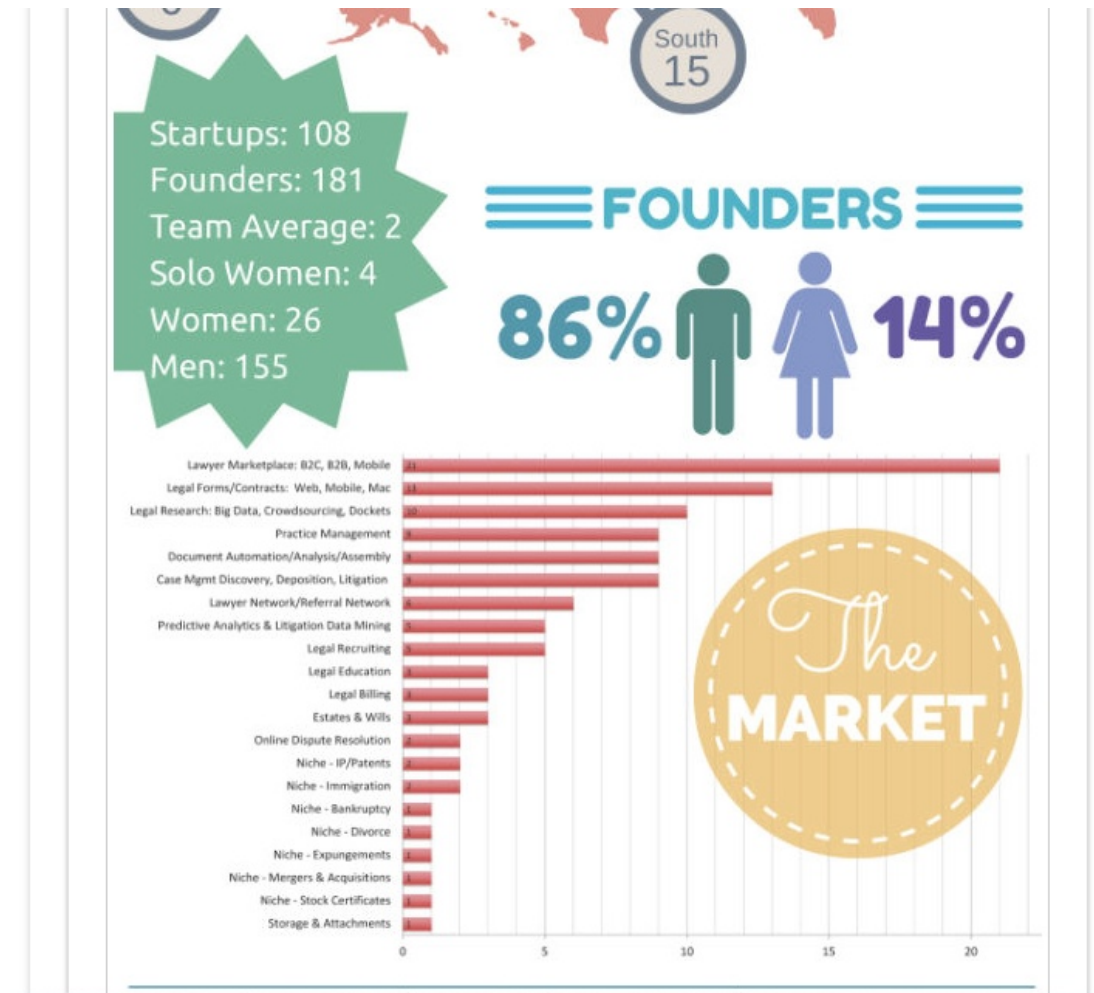
Activities in the Legal Startup Space (II)
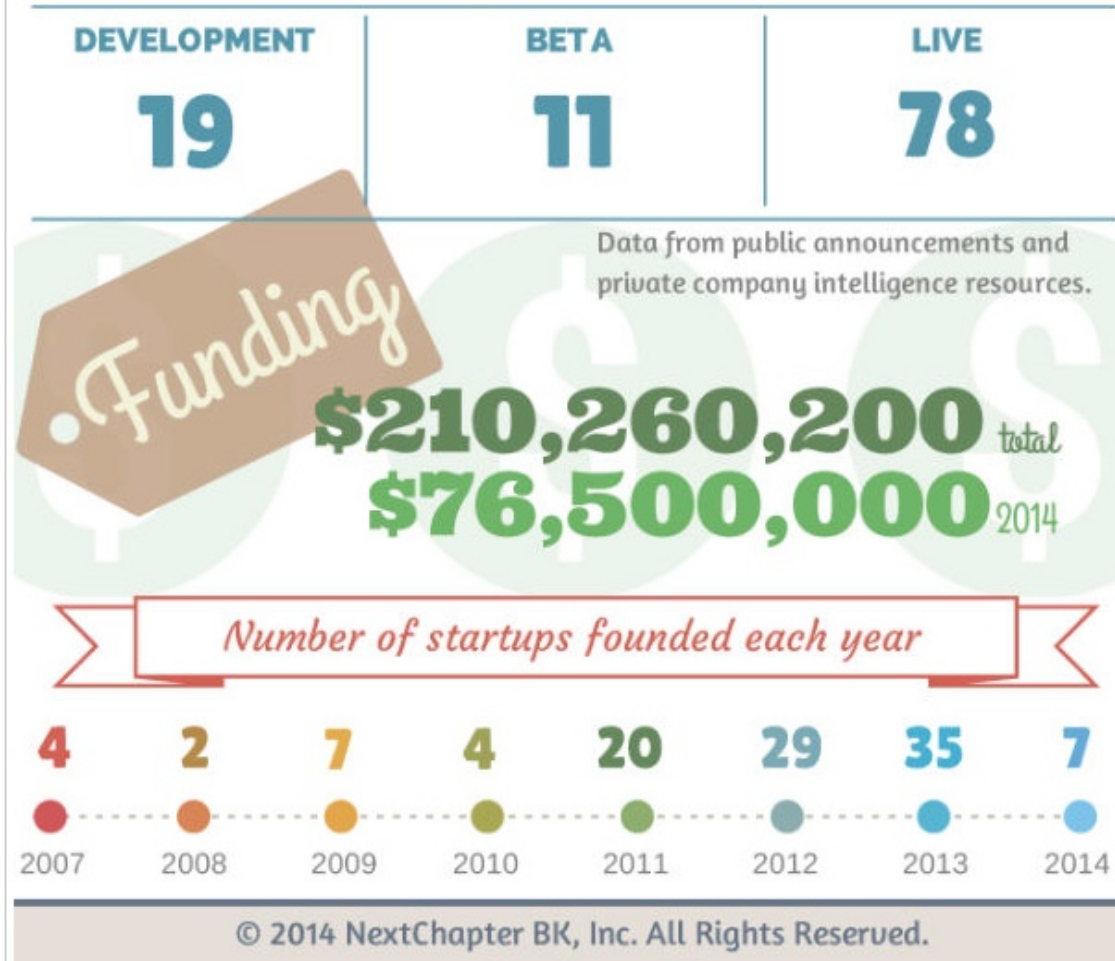
While we've been conducting our research …

To expand the tent and make meaningful progress, we need to …

- Acknowledge our roots … while embracing new developments
  - Argument representation, modeling, applications

- Invite greater participation from industrial players, incl. start-ups
  - Start-ups, CodeX enterprises, others
    - e.g., Lex Machina (ICAIL 2011, 2013), CaseText, Modria …
  - Such enterprises can help breath new life into the community, expose us to innovative approaches and technologies

- Consider other engagements beyond ICAIL
  - Facilitate workshops in new areas
  - Establish legal data sets
  - Host challenges
  - While being mindful of how essential evaluation is for each of these

To expand the tent and make meaningful progress, we need to …

- Signify source of thought leadership for the broader community
  - Given the deep pools of expertise in the community, harness it for good
  - Demonstrate that we represent a true source of authority
    - E.g., contribution to AI & Law on Wikipedia

- Consider new problems
  - Get out of comfort zone
  - May take more time to start, yet the payoffs can be great

- Consider new collaborations, new partnerships
  - Multi-disciplinary initiatives
  - Engagement w/ new Center for Computation, Mathematics & the Law here at USD

- Be open to models and approaches contrary to one's own
  - Also applies to PC service and reviews
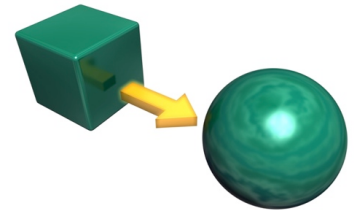
ICAIL as the 'Venue of Choice'

- Aspire to be *the* forum for next gen AI & Law activities
  - In Big Data, ML, DM, NLP, KBs
- Positive examples
  - DESI VI – fifth co-located with ICAIL
    - Among most established E-Discovery workshops, now w/ I.G. too
- Other prospective partnerships (legal, judicial, gov'tal)
  - E-government/E-democracy
  - Algorithmic Regulatory Compliance / Verification
  - New Legal Marketplace
  - Computational Law
  - IP Analytics
  - Predictive Modeling of Risk

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And What About Europe? - European Opportunities (I)

- The European Research Council continues to fund well conceived proposals, e.g.,

    - **E-Codex**: e-Justice Communication via Online Data Exchange

    - **MAPPING**: Managing Alternatives for Privacy, Property & Internet Gov.

    - **RESPECT**: Rules, Expectations & Security through Privacy Enhanced Convenient Technologies

    - **EVIDENCE**: European Informatics Data Exchange Framework for Courts and Evidence

    - **ICT4Law**: ICT Converging on Law – Next Generation Services for Citizens, Enterprises, Public Administration, Policy Makers

    - **LOIS**: Lexical Ontologies for Legal Information Sharing

    - **DALOS**: Drafting Legislation with Ontology-based Support

    - **SEAL**: Smart Environment for Assisting Legislation Drafting/Debating

    - **CEN/ISSS**: Open XML interchange format for legal docs

    - **ESTRELLA**: Standardized Transparent Representations to Extend Legal Accessibility

What about Europe? - European Opportunities (II)

HORIZON 2020

The EU Framework Programme for Research and Innovation

European Commission > Horizon 2020

| What is Horizon 2020? | Find Your area | How to Get funding? | News, Events & Publications |

Sections navigation

Excellent Science

European Research Council

Future and Emerging Technologies

Marie Skłodowska-Curie actions

European Research Infrastructures, including e-Infrastructures

Find **Your area**

Excellent Science

Article   Newsroom

Activities under this Pillar aim to reinforce and extend the excellence of the Union's science base and to consolidate the European Research Area in order to make the Union's research and innovation system more competitive on a global scale.
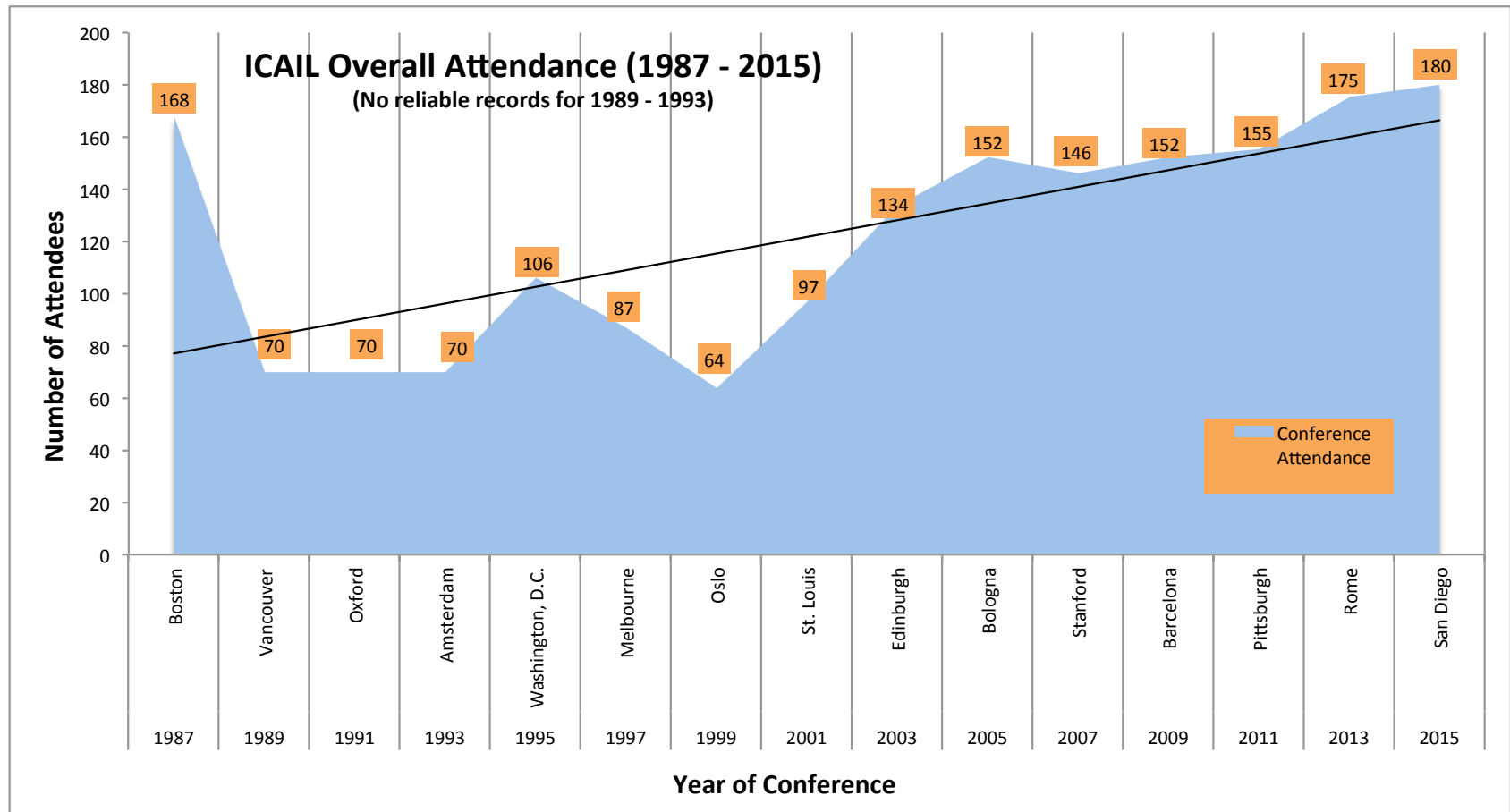
The Excellent Science pillar has main four specific objectives:

1. The European Research Council (ERC) will provide attractive and flexible funding to enable talented and creative individual researchers and their teams to pursue the most promising avenues at the frontier of science, on the basis of Union-wide competition.

2. Future and emerging technologies will support collaborative research in order to extend Europe's capacity for advanced and paradigm-changing innovation. They will foster scientific collaboration across disciplines on radically new, high-risk ideas and accelerate development of the most promising emerging areas of science and technology as well as the Union-wide structuring of the corresponding scientific communities.

3. Marie Skłodowska-Curie Actions will provide excellent and innovative research training as well as attractive career and knowledge-exchange opportunities through cross-border and cross-sector mobility of researchers to best prepare them to face current and future societal challenges.

4. Research infrastructure (including e-infrastructures) will develop European research infrastructure for 2020 and beyond, foster their innovation potential and human capital, and complement this with the related Union policy and international cooperation.

55

ICAIL has a Respectable Track Record

- We have a rich and productive history to be proud of, with numerous examples demonstrating it

  - Daphne Gelbart and J.C.Smith on the Flexicon legal text-based intelligent system (ICAIL 1991, 1993)

  - Howard Turtle on the first commercial natural language search engine, WIN, based on his PhD work (ICAIL 1995)

  - Gloria Lau, et al. on a lawyer directory service using legal documents and profile information for support (ICAIL 2005)

  - Paul Zhang, et al., on visualizing and analyzing case history using a semantics-based citation network (ICAIL 2007)

  - Chris Dozier on Medical Litigator's component parts (ICAIL 2007)

  - Mihai Surdeanu, et al. on Lex Machina's IP risk analysis and feature ablation studies for identifying patent trolls (ICAIL 2011, 2013)

ICAIL Attendance

ICAIL Overall Attendance (1987 - 2015)
(No reliable records for 1989 - 1993)

Number of Attendees (y-axis): 0, 20, 40, 60, 80, 100, 120, 140, 160, 180, 200

Year	City	Attendance
1987	Boston	168
1989	Vancouver	70
1991	Oxford	70
1993	Amsterdam	70
1995	Washington, D.C.	106
1997	Melbourne	87
1999	Oslo	64
2001	St. Louis	97
2003	Edinburgh	134
2005	Bologna	152
2007	Stanford	146
2009	Barcelona	152
2011	Pittsburgh	155
2013	Rome	175
2015	San Diego	180

Year of Conference

Legend: Conference Attendance

Some Final Thoughts

By exercising sufficient thought leadership, playing to our strengths, and pursuing practices that have been repeatedly successful, the community can grow while celebrating its core capabilities and expanding them into alternative but clearly relevant AI & Law subfields.

-- J.G. Conrad, June 2015

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Artificial Intelligence & Law:
Through the Lens of IAAIL – Past, Present and Future

Jack G. Conrad, IAAIL President
15th International Conference on Artificial Intelligence and Law
University of San Diego School of Law
10 June 2015

Questions & Discussion

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