

Treaties as Data: Leveraging Technology to Support Trade Negotiators

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Three Premises

1. Law is a form of data

→ **“treaty texts as data”**

2. Data science is a natural complement to traditional legal analysis, but requires different tools

→ **processing rather than reading scales analysis**

3. Technology does not have to be sophisticated to be useful

→ **less AI-hype and more knowledge management**

Three Premises

1. Law is a form of data

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What is data?

Traditional Data

“Structured data”

H8						
	A	B	C	D	E	F
1	Item #	Description	Vendor	Category	Size	Unit
2	492229	TURKEY SLICED .5 OZ	Ben E Keith	2 - FROZEN FOOD	0	0
3	662371	DRESSING CAESAR CREAMY	Ben E Keith	4 - GROCERY	0	0
4	779243	MARGARINE LIQUID OLEO	Ben E Keith	4 - GROCERY	0	0
5	815306	LID PLAS SOUFFLE CLEAR	Ben E Keith	4 - GROCERY	0	0
6	860055	LID PLAS 16SL SLOTTED	Ben E Keith	4 - GROCERY	0	0
7	860060	CUP FOAM 16OZ 16J16	Ben E Keith	4 - GROCERY	0	0
8	774704	PAPRIKA	Ben E Keith	4 - GROCERY	0	0
9	664005	Mustard Prepared	Ben E Keith	4 - GROCERY	512	fl oz
10	750100	CHEESE PARMESAN SHRED	Ben E Keith	4 - GROCERY	0	0
11	250025	EGG FRESH SHELL MED USDA AA	Ben E Keith	1 - PRODUCE	0	0
12	686034	VINEGAR APPL CIDER 40GRAIN	Ben E Keith	4 - GROCERY	0	0
13	29078	LIME 12 CT	Ben E Keith	1 - PRODUCE	12	ct

New Data

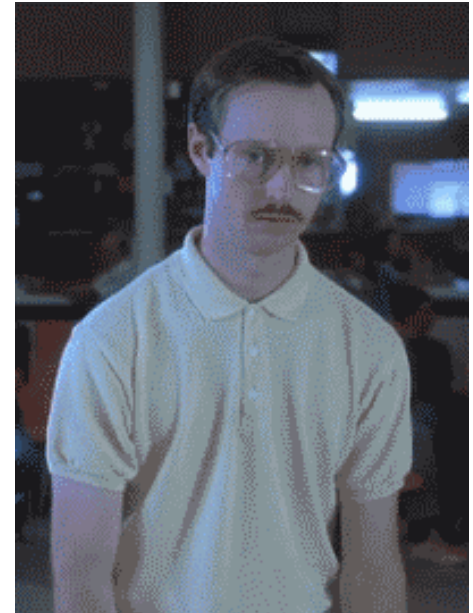
“Unstructured data”



Legal Data

Significant opportunity

- Legal data is everywhere
 - Treaties, MOUs
 - Legal decisions
 - Minutes
 - News items
 - Non-text data
- Government has lots of it



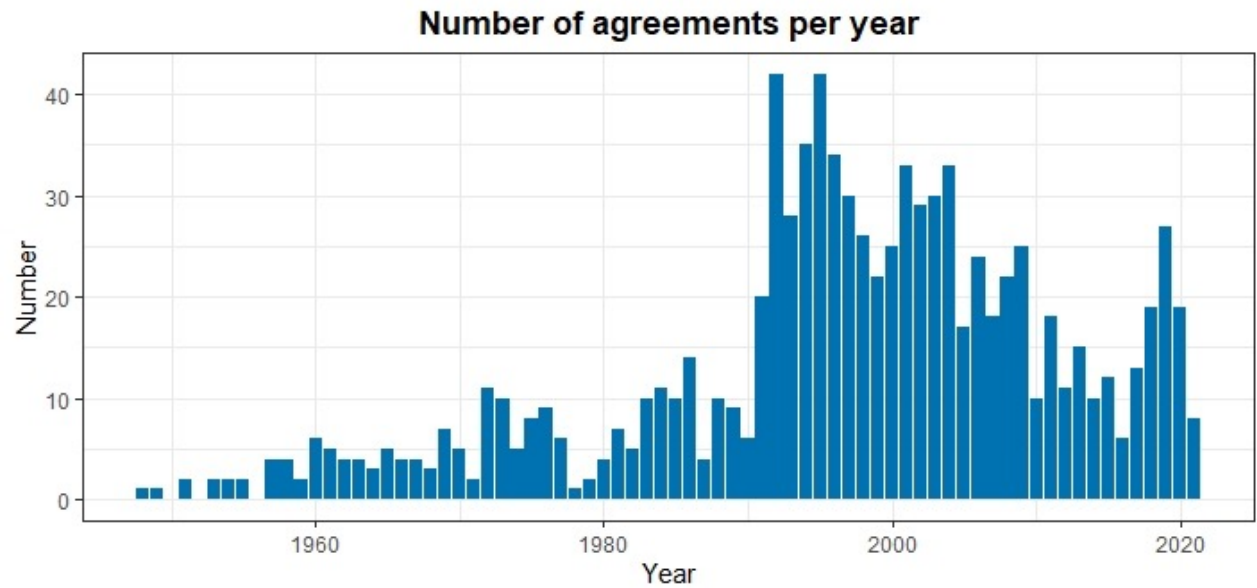
Legal Data

Significant challenges

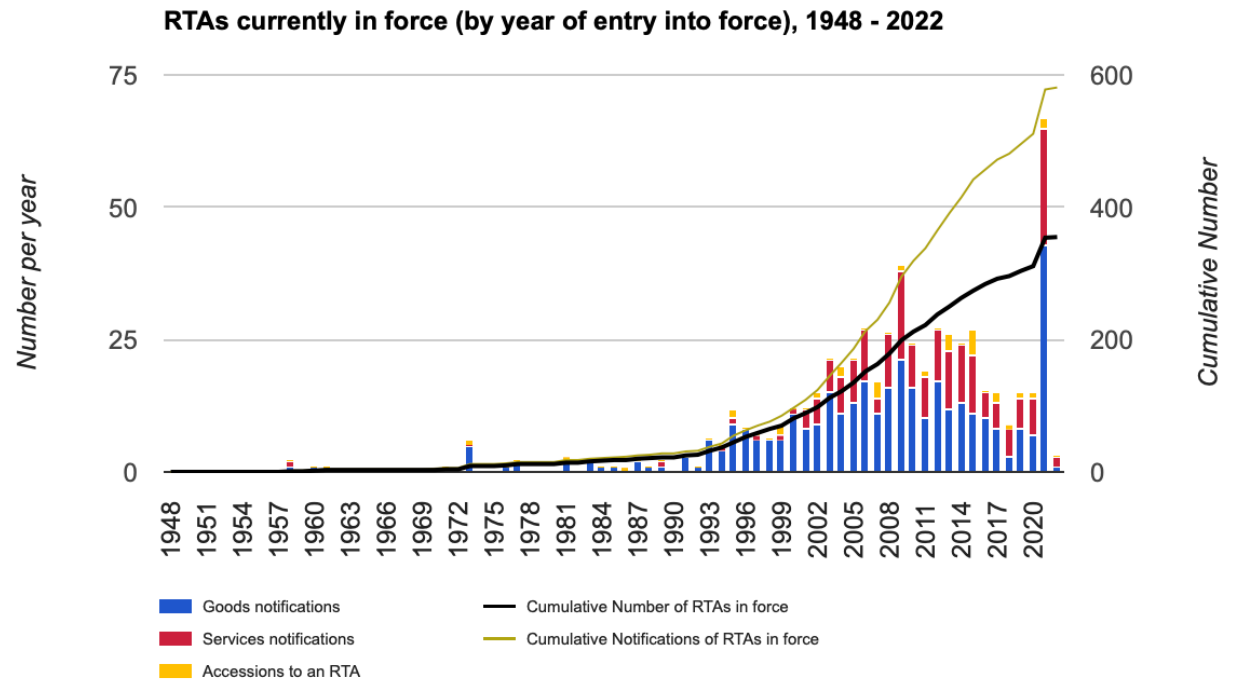
- Texts not in machine-readable format
- Need to be laborious collected (and digitized)
- Missing data
- Unclear benchmarks



Trade
Agreements
based on the
DESTA
Research Data



Trade
Agreements
based on WTO
Data



Three Premises

1. Law is a form of data

→ **“treaty texts as data”**

2. Data science is a natural complement to traditional legal analysis, but requires different tools

→ **processing rather than reading scales analysis**

Complementary Tools



“To succeed in the profession of the law, you must seek to cultivate command of language. **Words are the lawyer's tools of trade.**

... When I was young, I did not think much in words. At Oxford, I studied **Mathematics**. No need for words there. The tools I used then were **numbers, letters and symbols**. Lifeless things without meaning or sound – the **necessary tools of the scientist but not of the lawyer.**”

Lord Denning, “The Discipline of Law”, 1979

Complementary Tools



Traditional Legal Techniques

Reading

Small Scale

Interpretation



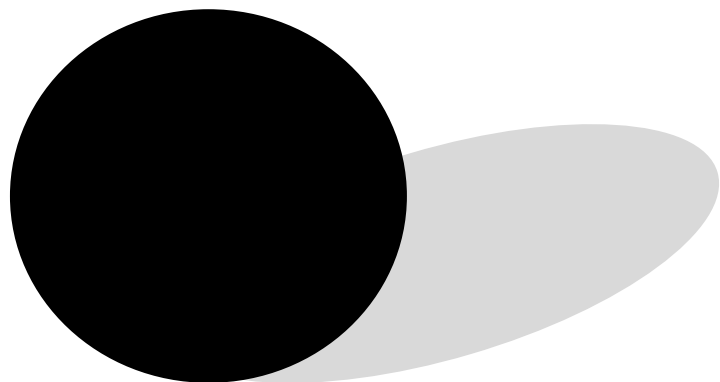
Legal Data Science

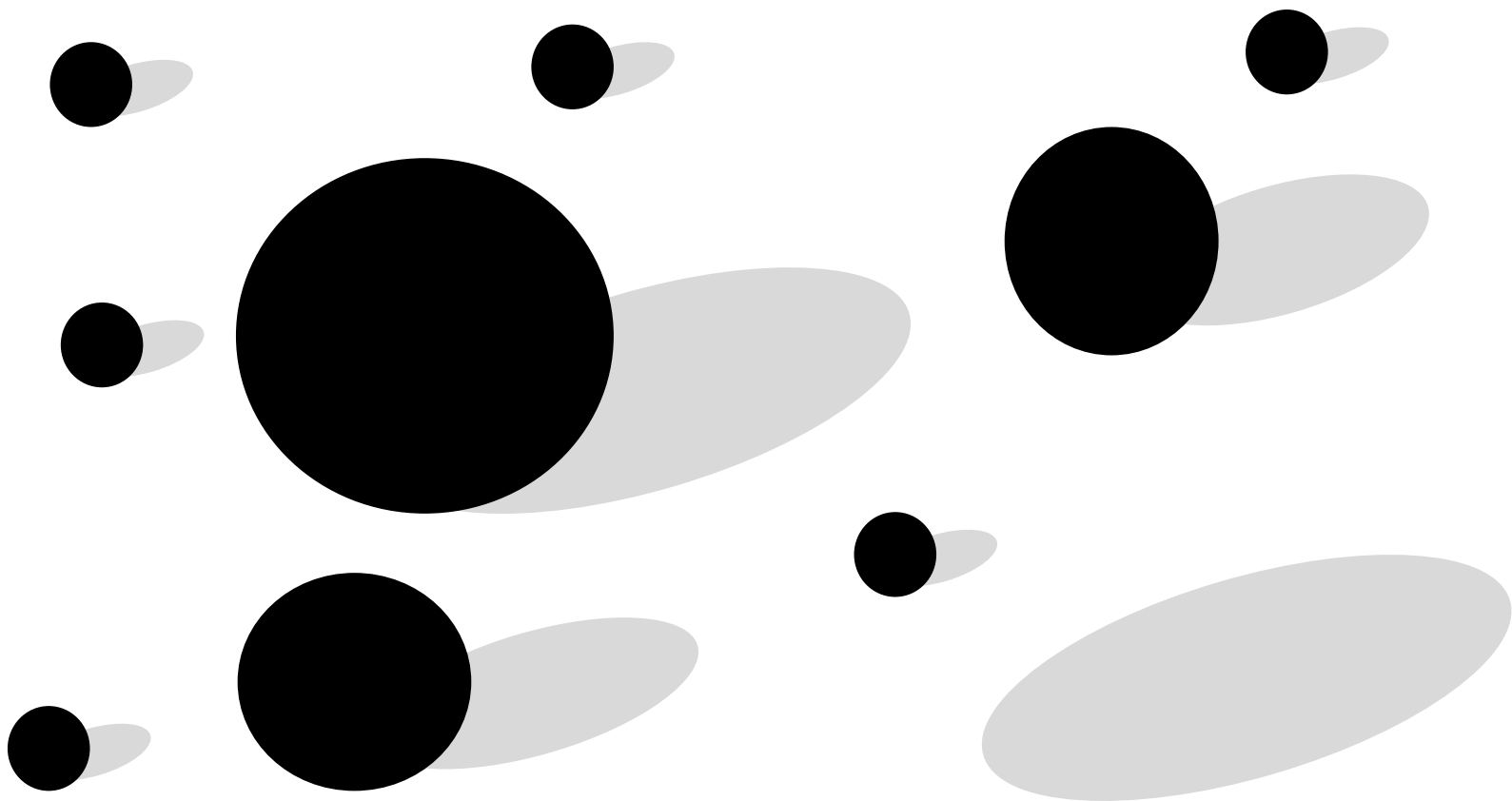
Processing

Large Scale

Computation

Rendering Policy Analysis Scalable





Three Premises

1. Law is a form of data

→ **“treaty texts as data”**

2. Data science is a natural complement to traditional legal analysis, but requires different tools

→ **processing and visualizing rather than just reading**

3. Technology does not have to be sophisticated to be useful

→ **less AI-hype and more knowledge management**

Technology as Knowledge Management & Analysis Tool

Technology solves old problems

- Retain expertise and experience
- Replace labor-intensive tasks
- Ensure efficiency by creating analysis pipelines for recurring questions
- Level-the-playing field by providing equal access to insights



Trade Agreement Lifecycle



Trade Agreement Lifecycle



Preparing Negotiations

Economic and Political Determinants

Normative Determinants

- Outdatedness of existing rules
- Overlap with existing treaties
- Exposure to litigation risk

Identify targets for re(negotiation)

- Litigation Risk -

Treaty	National Treatment	MFN Treatment	Expropriation	Fair and Equitable Treatment	Full Protection and Security	Arbitrary Measures	Umbrella Clause	Essential Security Exception	General Public Policy Exceptions	Balance of Payments Exception
Australia-Mexico BIT (2005)										
Australia-Turkey BIT (2005)										
Australia-Sri Lanka BIT (2002)										
Australia-Uruguay BIT (2001)										
Australia-Egypt BIT (2001)										
Australia-India BIT (1999)										
Australia-Lithuania BIT (1998)										
Australia-Pakistan BIT (1998)										
Australia-Peru BIT (1995)										
Australia-Philippines BIT (1995)										
Australia-Czech Republic BIT (1993)										
Australia-Hong Kong, China SAR BIT (1993)										
Australia-Romania BIT (1993)										
Australia-Indonesia BIT (1992)										
Australia-Hungary BIT (1991)										
Australia-Czech Republic BIT (1991)										
Australia-Poland BIT (1991)										
Australia-Viet Nam BIT (1991)										
Australia-Papua New Guinea BIT (1990)										
Australia-China BIT (1988)										

Alschner, Wolfgang. *Investment Arbitration and State-Driven Reform: New Treaties, Old Outcomes*. Oxford, New York: Oxford University Press, 2022.

Trade Agreement Lifecycle



Implementation

Compliance

Uptake of agreement benefits

Litigation intensity

Trade Agreement Lifecycle



Data-Driven Negotiations

1. Reviewing global treaty-making trends
 - best practices
 - practices falling into disuse
2. Analysing treaty networks of partners
 - Consistency of past practice/ willingness to compromise
 - Evolving national practices
3. Comparing partner countries' treaties and treaty networks with Canadian practice
 - Identify low-hanging fruit and contentious issues
 - Contrasting different formulations

EDIT (edit.wti.org)



Investment Treaties

FILTER BY PARTIES

☒ Or ☐ And ☐ Within

FILTER BY COUNTRY GROUPINGS

☒ Or ☐ And ☐ Only

FILTER BY REGIONS

☒ Or ☐ Only ☐ Within

FILTER BY COUNTRY CATEGORIES

☒ Or ☐ Only ☐ Within

FILTER BY CATEGORIES

☒ Category tree ☐ Categories combo

- ☒ Preamble
- ☒ Scope
- ☒ Promotion and Admission

Welcome to EDIT

Electronic Database of Investment Treaties

3.876

TREATIES IN THE DATABASE

2.531

TREATIES IN FORCE IN THE DATABASE

What is EDIT?

The Electronic Database of Investment Treaties (EDIT) is a new comprehensive full text database of international investment agreements (IIAs). Its goal is to facilitate informed public discourse, evidence-based reform, and academic study of the international investment regime by providing unprecedented access to the most extensive set of IIA texts to date.

As a fully machine-readable database, EDIT allows for efficient search through all IIAs, including through pre-defined content categories. All texts have been standardized and are now available in one single language (English) and format (XML). In addition, EDIT embraces a Wiki model whereby users can correct and help improve the data.

[Read more...](#)



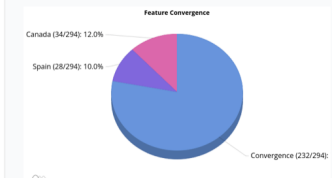
How to cite

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Published online by Cambridge University Press: 13 August 2020.

[Link to publications](#)

Investment Treaty Analytics Dashboards

Convergence Finder

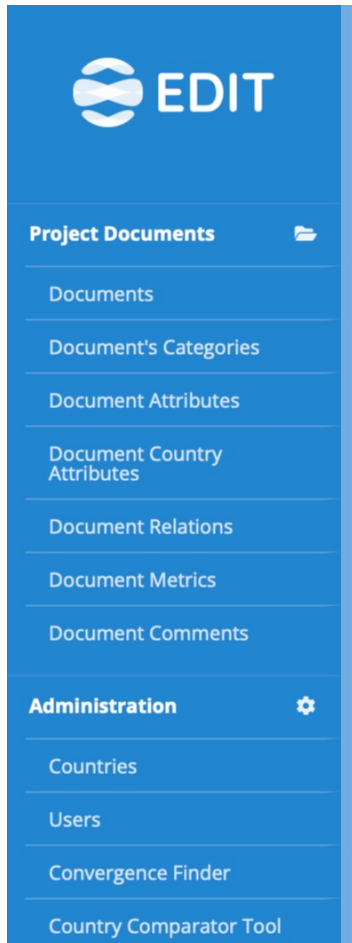


Detect commonalities and differences in the treaty practice of selected states.

[Link to Convergence Finder](#)



EDIT (edit.wti.org)



CATEGORIES

Fair and Equitable Treatment

6

ARTICLE TITLE

Minimum standard of treatment

CATEGORIES

Fair and Equitable Treatment

Linked to custom

Full protection

Full protection and security

1. Each Party shall accord to a covered investment treatment in accordance with the customary international law minimum standard of treatment protection and security.

CATEGORIES

Fair and Equitable Treatment

Linked to custom

Full protection

Full protection and security

2. The concepts of fair and equitable treatment and full protection and security in paragraph 1 do not require treatment in addition to or beyond law minimum standard of treatment of aliens.

CATEGORIES

Indirect Breach Carve-out

3. A breach of another provision of this Agreement, or of a separate international agreement, does not establish that there has been a breach of

CATEGORIES

Compensation for Losses

7

ARTICLE TITLE

Compensation for losses

CATEGORIES

Armed Conflict

Non-discrimination

Compensation

Civil Strife

Notwithstanding subparagraph 5(b) of Article 16 (Reservations and Exceptions), each Party shall accord to an investor of the other Party, and to a respect to measures it adopts or maintains relating to compensation for losses incurred by investments in its territory as a result of armed conflict

EDIT (edit.wti.org)

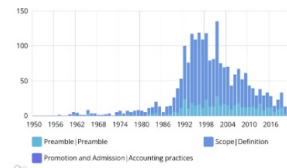


EDIT - a Electronic Database of Investment Treaties

[Try a new search](#)

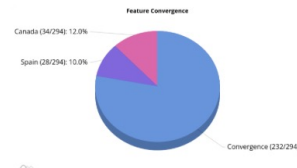
Investment Treaty Analytics Dashboards

EDIT provides a selection of dashboards that allow users to investigate the content of investment treaties in novel ways. The dashboards help track trends in investment treaty-making, compare country practices and identify areas of convergence and divergence. Together these dashboards form an analytics toolkit to support investment treaty negotiation, the reform of the investment regime, and research and analysis on past and current treaty practice.



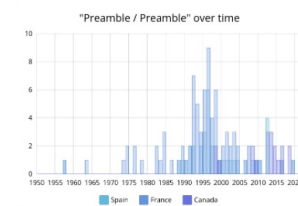
Clause Tracker

Explore the evolution of treaty provisions to spot trends over time.



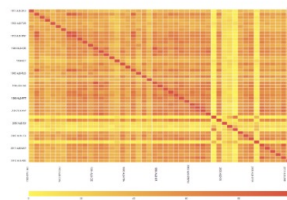
Convergence Finder

Detect commonalities and differences in the treaty practice of selected states.



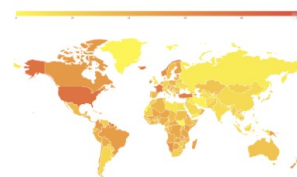
Country Comparator

Compare the treaty practice of multiple states on specific provisions.



Country Heatmap

Assess the consistency of treaty networks.



World Map (Choropleth map)

Spot global treaty making patterns.



Text Comparator

Compare the language of individual treaty provisions.

Questions

1. How to convince a partner country to include sustainable development references in the treaty preamble?
2. What is likely to be a contentious procedural issue if Canada and Turkey were to negotiate a FIPA with ISDS?
3. What are key differences in the 'Environmental Measures' clauses of NAFTA (Art. 1114) and the Guatemala – Trinidad BIT (Art. 16)?

Merci

Get in touch:

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Learning Resources: www.datascienceforlawyers.org

Treaty Analytics:

EDIT Database (edit.wti.org)

Mapping Treaties (mappinginvestmenttreaties.com)