



# Events in the Legal Domain

## First Impressions

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Introduction

# RESEARCH QUESTIONS

- Open questions:
  1. What is an event *in the legal domain*?
  2. What is a relevant event in the legal domain?
    - Within the same judgment/legislation/contractual clauses which are the most relevant events?
    - What is the relevant information about them?
  3. How do we measure it?
  4. How do we annotate and represent them?
  5. How to extract them?
  6. How do we evaluate?

# 1. What is an event *in the legal domain*?

## Article 8

### Duration of the subscription contract

The subscription contract is concluded for an indeterminate period with an initial period of one year. The duration of this initial period may however vary depending on the offer tariff chosen by the customer and included in the Orange tariff sheet

(Les Conditions Générales d'Abonnement à l'offre Orange)

## Article 34

### Communication of a personal data breach to the data subject

1. When the personal data breach is likely to result in a high risk to the rights and freedoms of natural persons, the controller shall communicate the personal data breach to the data subject without undue delay. (GDPR)

14- On 5 March 2010, Mr Costeja González, a Spanish national resident in Spain, lodged with the AEPD a complaint against La Vanguardia Ediciones SL, which publishes a daily newspaper with a large circulation, in particular in Catalonia (Spain) ('La Vanguardia'), and against Google Spain and Google Inc. The complaint was based on the fact (...) (ECJ)

# 1. What is an event *in the legal domain*?

## Article 8

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The **subscription contract** is concluded for an indeterminate period with an **initial period of one year**. The duration of this initial period may however **vary** depending on the offer tariff chosen by the customer and included in the **Orange tariff sheet** (Les Conditions Générales d'Abonnement à l'offre Orange)

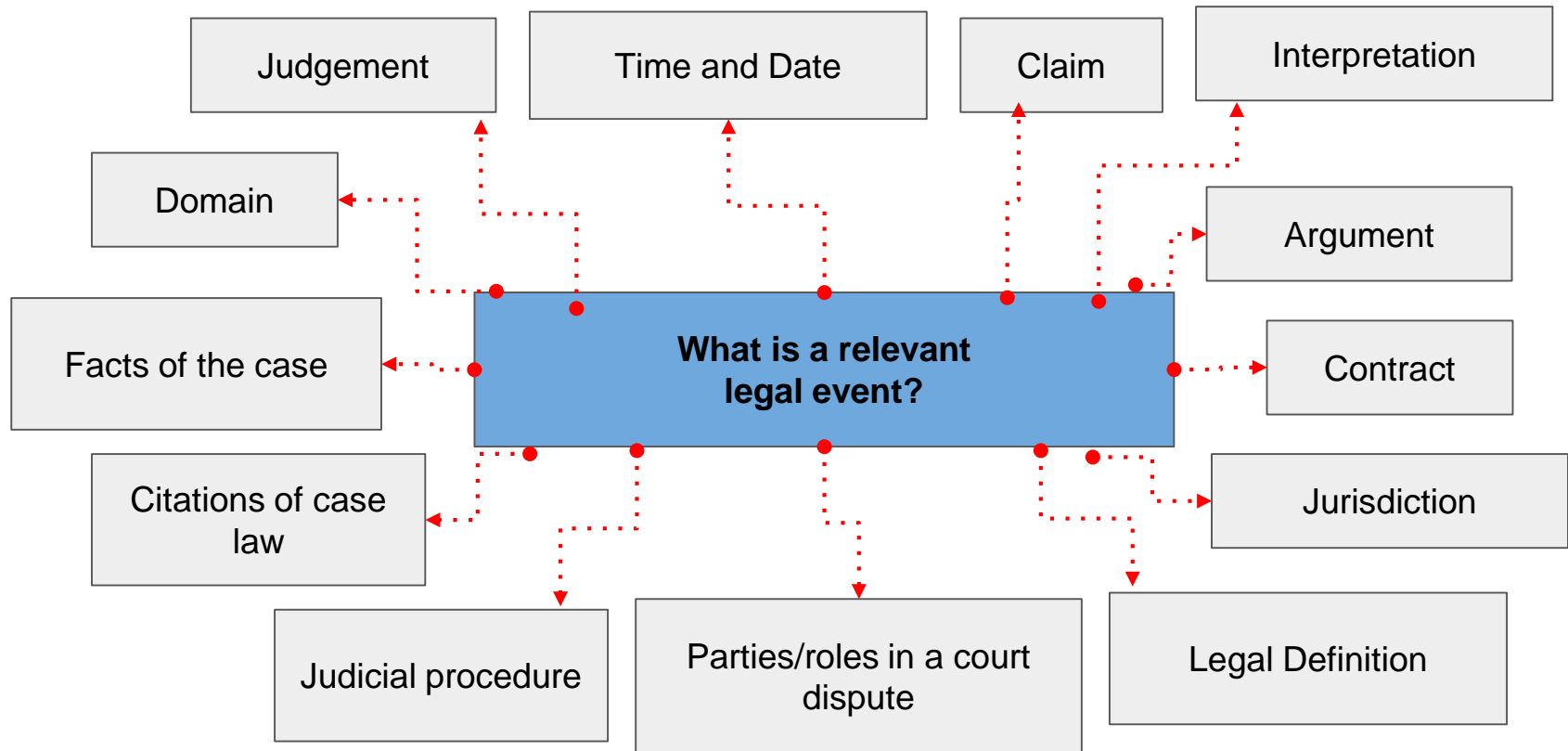
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## 2. What is a relevant event in the legal domain?



### 3. How do we measure this relevance?

- Relevance is related to objective and to representation.
- Previous efforts:

(Chasin, 2010) No metrics are provided:

1. They use a temporal tagger.
2. Assume the event is the tagged sentence.
3. They rank them with different measures (POS, grammatical, distance to Named Entities, *length*...). Also considered negation.

(Prasojo et al, 2018) No metrics *on events*:

1. Extract events.
2. Use them for summarization.
3. They evaluate the summary (sum. metrics + human assessment)



## 4. How can we annotate and represent them?

- Several annotation schemas:
  - TimeML: focused on temporal information, types (reporting, aspectual, state...)
  - ACE: different types; among them, JUSTICE, with:
    - arrest-jail, release-parole, trial-hearing, sue, execute, appeal...
- General ontologies:
  - Time + PROV
  - Event Ontology, by Yves Raymond
  - Simple Event Ontology
  - Ontology Design Patterns (description-situation, event processing)
- Frames (like in FrameNet)
- Most cases, each work has its own *ad hoc* definition.

- Depends on the event related definition/information:
  
- Previous legal literature:
  - Semantic Role Labelling
  - Patterns verb + date
  - Semantic frames
  
- Definition-oriented extraction of general events:
  - An event is:
    - any verb,
    - deverbal noun,
    - noun after *during...*

## 6. How do we evaluate this extraction?

- We have several things to evaluate:
  - Event detection
  - Argument detection
  - Relevance
- Previous proposals:
  - Precision, Recall and F-measure (TimeML – TempEval)
  - Question Answering (SemEval 2015)
  - ACE: VDR value (extent of the annotation, arguments, attributes)
- Other ideas:
  - Several levels of evaluation (BioNLP'09)
    - Core
    - Core + surrounding entities
    - Core + surrounding entities + *factuality*



Our First Analysis

# GENERAL OBSERVATIONS

Legal events vary according to different criteria:

- Multy-jurisdictionality and multilingualism:
  - eg, in Japan there exist the concept of rescinding a rescision of a contract, but it does not in Europe.
  - eg, some types of laboral contracts do not exist in all countries.
  
- Document dependency:
  - Type: contracts/case law/regulations...
  - Domain (criminal, taxes...), specially for *relevance*.
  
- Level of abstraction:
  - Same event can be of different types depending on the considered abstraction.
  - eg, “observation” can be a reporting event (the court observes), a procedural event (written observations).

- Agents and role:
  - The consideration of an event can vary according to the agent reporting it.
  - eg, the victim's view vs the perpetrator's.
  
- Temporal, contextual and spatial features:
  - Different events in the same proceedings can be held in different contexts/time/space axis
  - Eg, submission of an application by an applicant in their National Court, pleadings, appeal to another court, ruling by the ECJ...
  
- Scenario or application-based:
  - Depending the objective of the work, the definition and the relevance of events vary.



Our First Analysis

# LESSONS LEARNED FROM OUR USE CASE

10 document corpus (4820 words/doc) from the European Court of Justice.

- Analysis of common structure, sections with relevant events:
  - Preamble
  - Background of the case
  - Considerations
  - Final ruling
  
- First annotation comprehends:
  - Contextual relevant information (by a lawyer)
  - The event
  - Related synonyms



## ■ Coverage:

- Linguistic: nouns, verbs, nominal phrases.
- Difficult to set boundaries for roles and actors.

## ■ Legal terminology:

Always tricky (polysemy, vagueness, ambiguity, synonymy), plus:

- Change of meaning of conventional terms:
  - Against the applicant.
  - Before the Court.
- Terms with several interpretations, such as *submit*:
  - Express an argument.
  - “Submit written observations”, procedural documents lodged before the Court.

- Info in the preamble:
  - Identity-related events: the referring court, litigant parties (applicant/defendant), agents (States, European Commission...)
  - Location- and date-related events: *eg “10 September 2014, Request for a preliminary ruling from the Krajsky Sud v Presove (Slovakia)”*
  - Domain-related: indicated in the initial summary (*eg, illegal migration*)
  
- Background of the case:
  - The most interesting and includes the most relevant events, arguments and facts.
  
- Events subsumed to national courts:
  - Expressions including mentions to “National Court”, “Regional Court”, “District Court” and similar.

- Interpretative issues:
  - Different versions from each of the parts on the same event.
  
- Negation and factuality:
  - Events can be negated, or “possibilities, intentions or preferences”:
  - *eg, “The Court does not have before it any evidence which might raise doubts as to the compliance of the legislation at issue in the main proceedings with that principle”; (...) “In the light of the answer to the first three questions, it is not necessary to respond to that request by the Slovak Government.”*
  
- Legal related events location:
  - They can be at different structures of documents (paragraph, summary, conclusion...)

## ■ Descriptors found:

Some expressions are indicative of events:

- Concerning identification events:
  - Petition type (*eg preliminary ruling*)
  - Composition of the court
  - Date of the judgment
  - Parties involved
  - Topical content of the case
  - Facts
- Quoted case-law: courts attempt to ground the decision by reference to past case-law.
- Judgment delivery.



Future work

# CONCLUSIONS

- Work done:
  - Overview of previous definitions and approaches.
  - Analysis of representation options:
    - Several (Akoma Ntoso, LKIF...), no standard or consensual definition/representation for legal event available.
  - First annotation lead to first ideas for definition and extraction.
  - Identification of possible applications: Case-based reasoning, Legal Argumentation, Contract Review...
- Future work
  - Atomizing properties, instances and attributes of legal events.
  - Second Court corpus (more ECJ decisions and European Court of Human Rights) for consolidating the output exposed in this paper.
  - Construction of a semantic model.
  - Assessment criteria for validating relevance of legal events.
  - Event extractor in the legal domain.



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