

Supporting Layman in Finding Relevant Court Decisions in the BEST-project

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1. Determining BATNA's

The aim of the BEST-project is to support laymen in judging their legal position through intelligent disclosure of case-law in the area of Dutch tort law. Laymen can turn to legal professionals to determine their legal position, but often resolve their disputes in an informal way, e.g. by negotiation, or just leave it. In the BEST-project (BATNA Establishment using Semantic web Technology) we strive to provide disputing parties with information about their legal position in a liability case. In this way parties are given the opportunity to form a judgment about whether they could hold another party liable for certain caused damage or if they could be held liable themselves. Also, parties can determine how much room for negotiation is available when settling the damage. By information about previous court decisions, where relevant taking into consideration other factors such as time, costs, emotions, etc., a well-rounded impression is obtained about a parties' BATNA (Best Alternative To a Negotiated Agreement), that is: the best option a party has if negotiation fails [3].

2. Terminology discrepancy

The project will provide technology that supports layman users by retrieving relevant case law that could help them in to determine their legal position. An important problem we have to face in this context is the discrepancy between the terminologies used. At least three different vocabularies can be distinguished: the vocabulary that laymen use to describe their case, the terminology found in legislation, and the wording in court decisions. To address this problem, we use a combination of statistical text retrieval methods and knowledge-based techniques. The basic idea is to de-couple the task of creating a meaningful and complete description of the case at hand (1) from the task of representing the case in legal concepts (2) and the task of retrieving similar cases (3).

3. Ontology-based interpretation

To support users to describe their case, an ontology with common sense terms for legal cases will be provided. Together with a semi-automatic annotation tool, this will allow users to relate their case description to the terms in the layman ontology.

A different ontology is used to define the legal concepts.

The first ontology significantly differs from the second. This difference not only lies in the different terminology used by laymen and experts but also in the required representations. While an ontology for creating structured case descriptions needs to provide the basis for describing complex configurations of situations, the ontology for legislation will focus on the legal concepts or situations. It is easy to see that these tasks require conceptually different representations.

To bridge the gap between both ontologies, we use logical reasoning to automatically determine legal concepts that are relevant for determining liability of parties in a case based on this description. Examples of such reasoning steps can be found in [1] and [2]. The result of this is a case description in layman terms annotated with legal concepts.

4. Concept-based retrieval

To use the legal concepts to find relevant court decisions, we use statistical text retrieval techniques. Each legal concept is described with a number of terms that occur in relevant court decisions. We apply two different approaches to list the terms: manual enumeration based on expert knowledge and automatic generation based on their significance. In both approaches the terms are weighted on their relative significance. The set of weighted terms is expressed as a vector and compared to the vectors that are created for each court decision. Relevant court decisions are retrieved by combining searches for relevant legal concepts that were identified in the layman descriptions. First experiments show that quality of the list of terms for legal concepts is an important factor for the success of the approach.

References

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