

BEST

BATNA Establishment Using Semantic Web Technologies

Heiner Stuckenschmidt
Vrije Universiteit Amsterdam

ToKeN-symposium, March 18th

<http://www.best-project.nl>

- Vrije Universiteit, AI Department & Computer/Law Institute
 - Arno Lodder/Frank van Harmelen
 - Postdoc – Heiner Stuckenschmidt
 - Ph.D student – Wouter van Steenberg
 - Msc. Student – Ronny van Laarschot
 - Scientific Programmer (2007-2008)



Aim of the project

- Facilitating dispute resolution (e.g., mediation) by determining the “best alternative to a negotiated agreement” (BATNA);
- Through intelligent disclosure of case-law using Semantic Web technology (*ontology-based search and navigation*)
- Relevant Questions:
 - **Liability:** damages are compensated only if the other party can be held liable.
 - **Compensation:** what compensation is reasonable

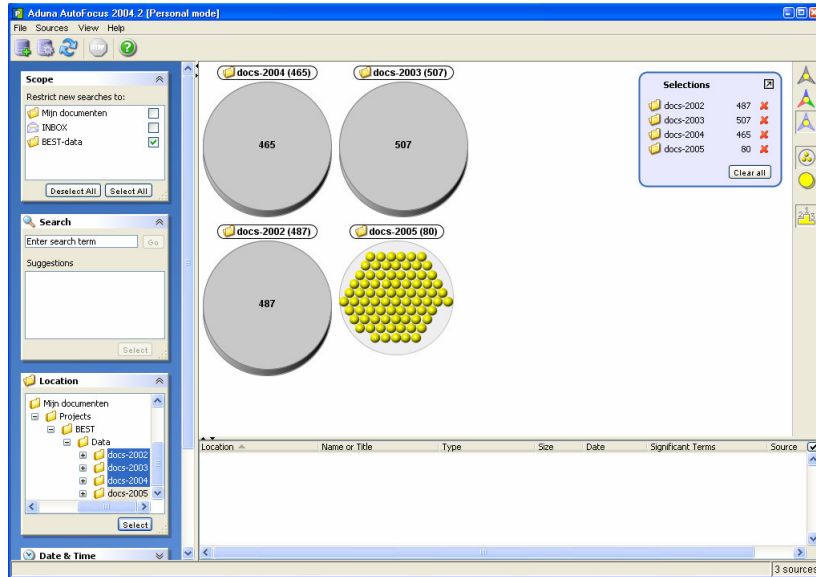
3

Approach

- Build a **system that supports the user** in determining liability and possible compensation by providing advanced search facilities for legal documents
- Necessary Steps
 - Domain analysis, resulting in light-weight legal ontology for damage disputes
 - Annotation of large corpus of case-law documents
 - Implementation of guided search and navigation interface

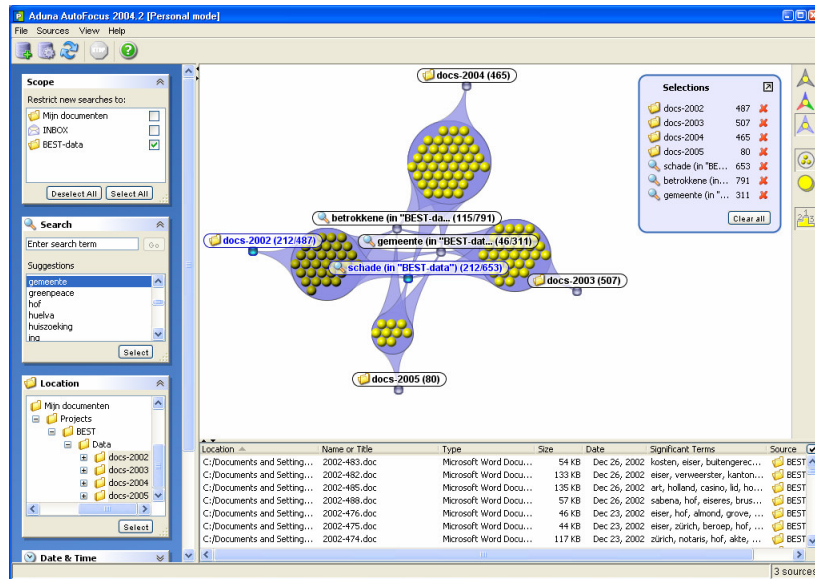
4

Fulltext Retrieval



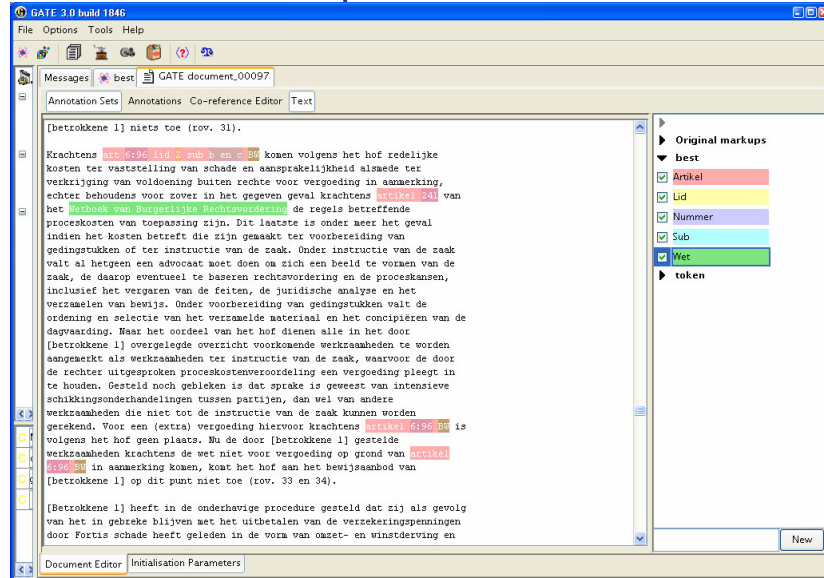
5

Fulltext Retrieval



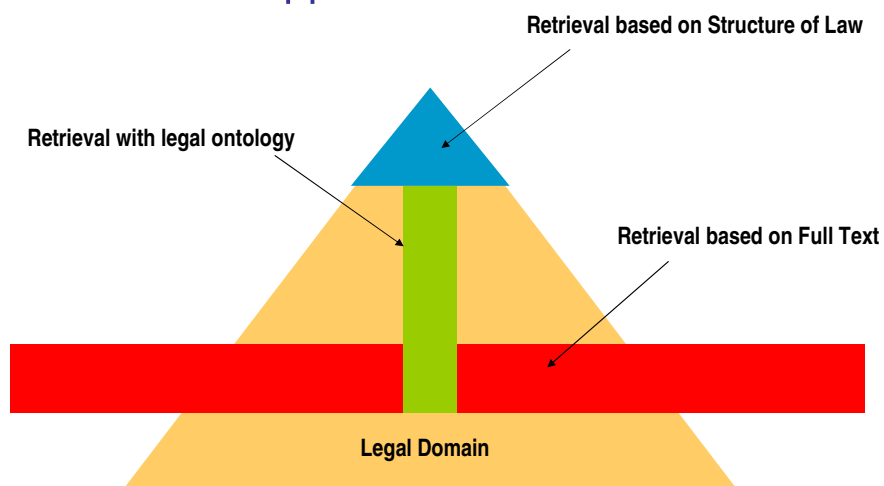
6

Automatic Markup



7

Combined Approach



8

Current Activities

- Build a domain ontology for the area of schadevergoedingsrecht
 - **Analysis of existing legal ontologies**
 - Mostly too general
 - Not really aimed at retrieval
 - **Knowledge Acquisition**
 - Analyse work process of a domain expert
 - Identify relevant terms used for searching documents
 - **Document Analysis**
 - What are the important terms in legal documents