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IT Regulations and Policies
- from theory into practice

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New School Case Law Knowledge Management

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Summary

- The importance of knowledge management
- Managing case law
- Jurimetrical analysis of case law
- Conceptual legal information retrieval
- Advanced jurimetrical analysis of case law
- New School of Law and Technology
- Conclusions

The importance of knowledge management

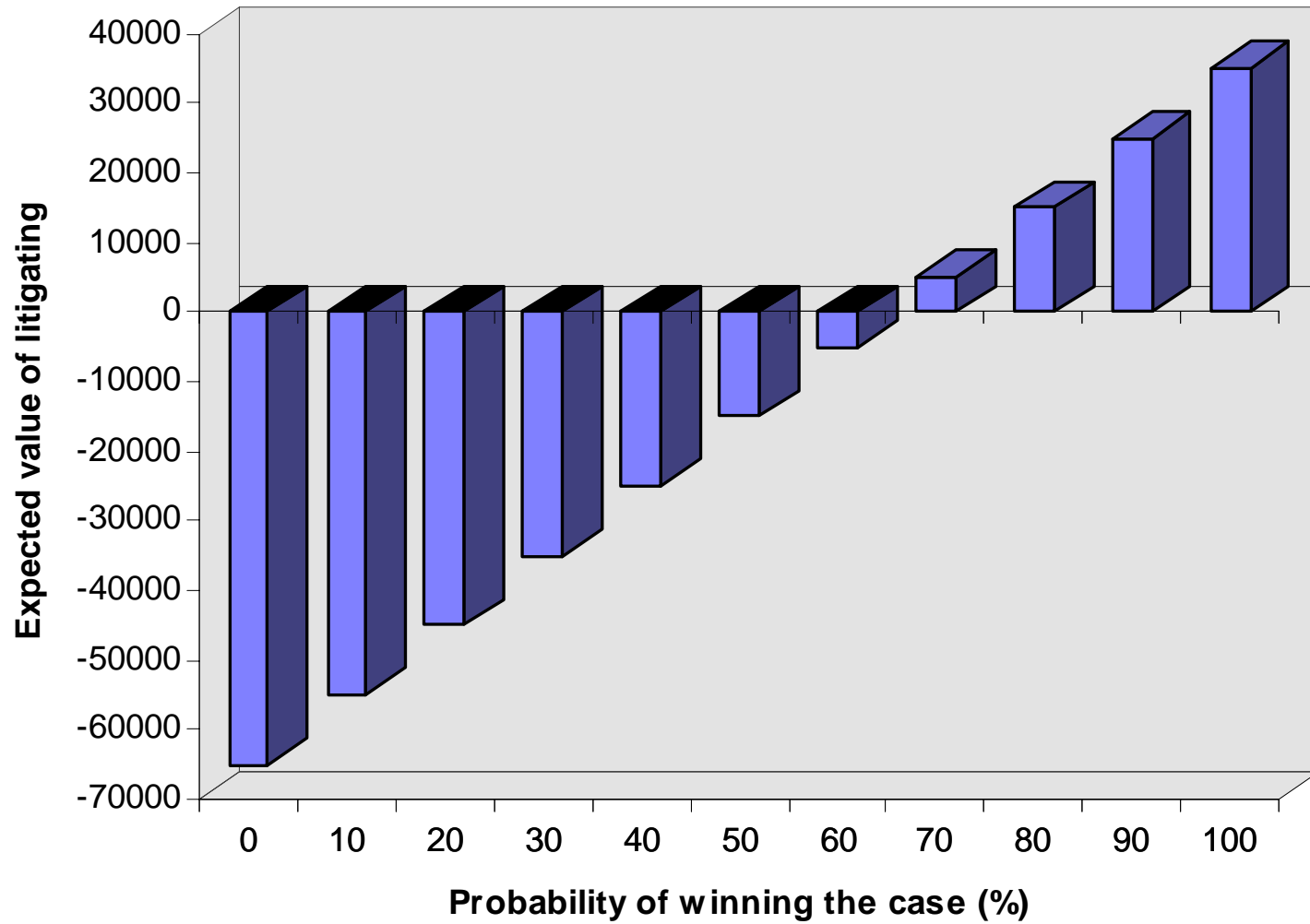
- The world has become more competitive
- and so has the market for legal services
- More is expected from governments
- Knowledge is the most important resource of companies and governments
- Knowledge management has become an essential part of general management

Case law knowledge management

- The amount of case law is increasing fast
- It is more and more available in digital form
- Case law is still an important source of legal knowledge and this will remain so

The rational approach: jurimetrics

Expected value of litigating



Definition

Jurimetrics is

- The empirical study of the **form**, the **meaning** and the **pragmatics** (and the relationships between those) of **demands and authorisations** issuing from **state organisations**
- with the aid of mathematical models and
- using methodological individualism as the basic paradigm for the explanation and prediction of human behaviour.

Jurimetrical analysis of case law

Jurimetrics is

- The empirical study of legal phenomena
- with the aid of mathematical models
- on the basis of rational man.

Steps in the analysis of case law

- Choose domain
- Retrieve cases
- Read cases
- Define legal item
- Decide on list of cases
- Build list of factors
- Code
- Process data

Processing data

- Enter coded data into spreadsheet
- Compute correlations between factors and decision
- Compute weights of factors
- Compute strengths of cases
- Rank the cases
- Produce graphs

Example list of facts: custody cases

I The lawsuit

I.a Facts in relation to the law suit

I.a.1 Aspects of time

Year/number of the decree:

Legal item:

Date of the last judgement:

Time between the initial request to change guardianship or the first placement under guardianship of which the appeal is and the last judgement: .. months.

I.a.2 Procedural aspects

The case is on appointing guardianship.

The father's lawyer is:

The mother's lawyer is:

.....

II Factors in relation to parties

II.a The father

II.a.1 Facts in relation to the father

The father is the guardian at the time of the start of the lawsuit

A legal child of the father is involved.

.....

II.a.2 The arguments put forward by the father

The child's interest is put forward as an argument by the father.

.....

II.b The mother

II.b.1 Facts in relation to the mother

II.b.2 Arguments put forward by the mother

.....

II.c The children

II.c.1 Facts in relation to the children.

The sex of the children:

The average age of the children:

One of the children is younger than 2 years.

One of the children is older than 12 years.

The children live with the mother.

II.c.2 Arguments put forward by the children

.....

II.d Interested parties

II.d.1 Facts in relation to interested parties

II.d.2 Arguments put forward by interested parties

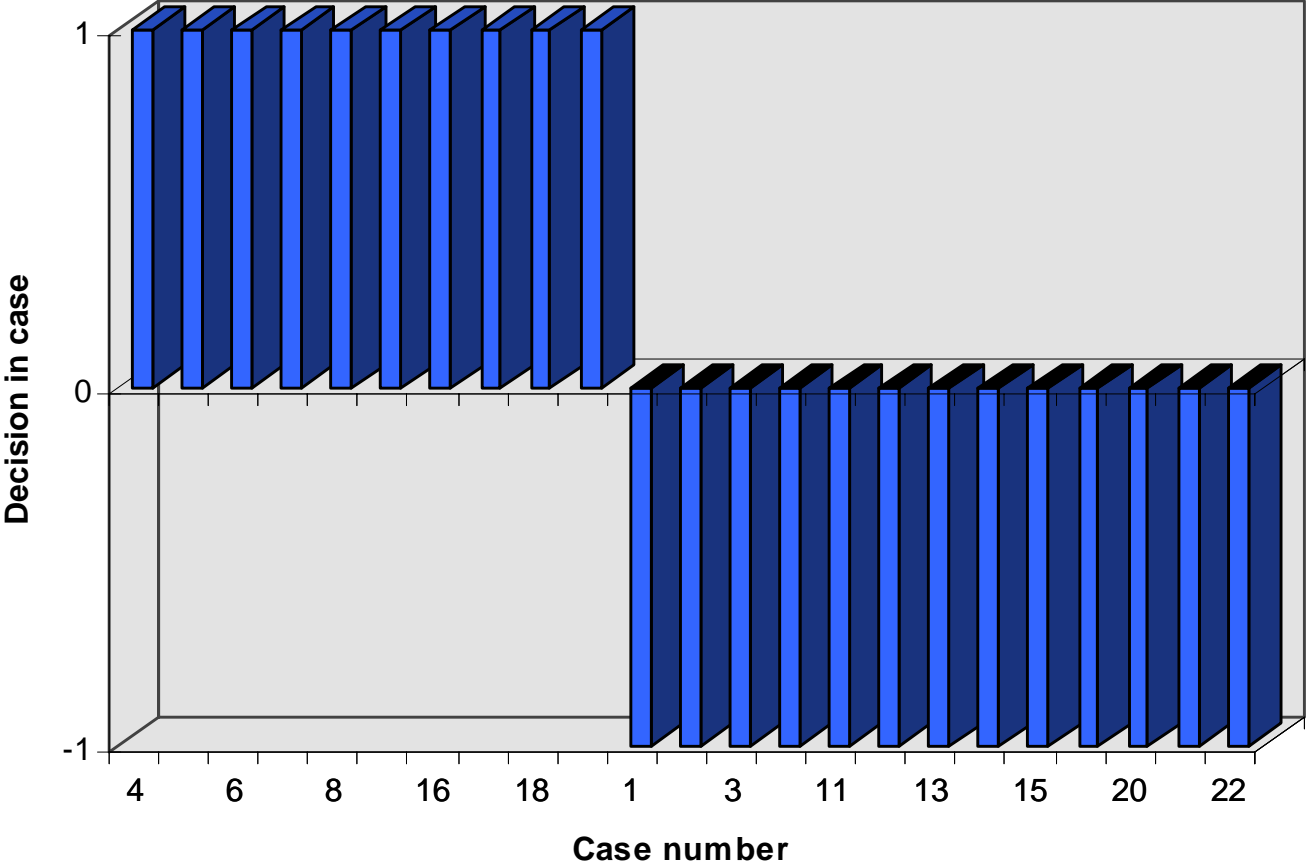
.....

III Other relevant factors.

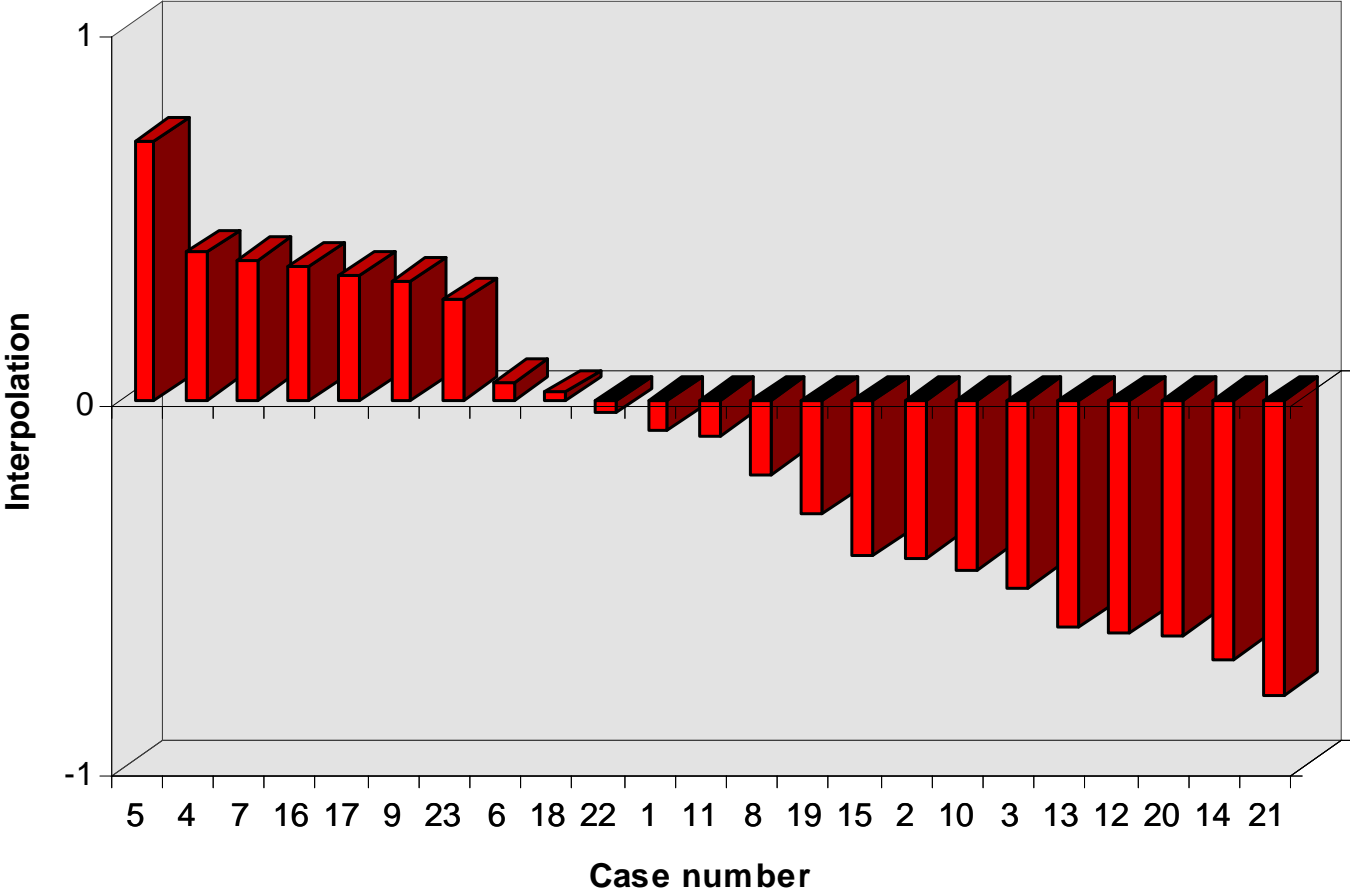
Parties have been married.

.....

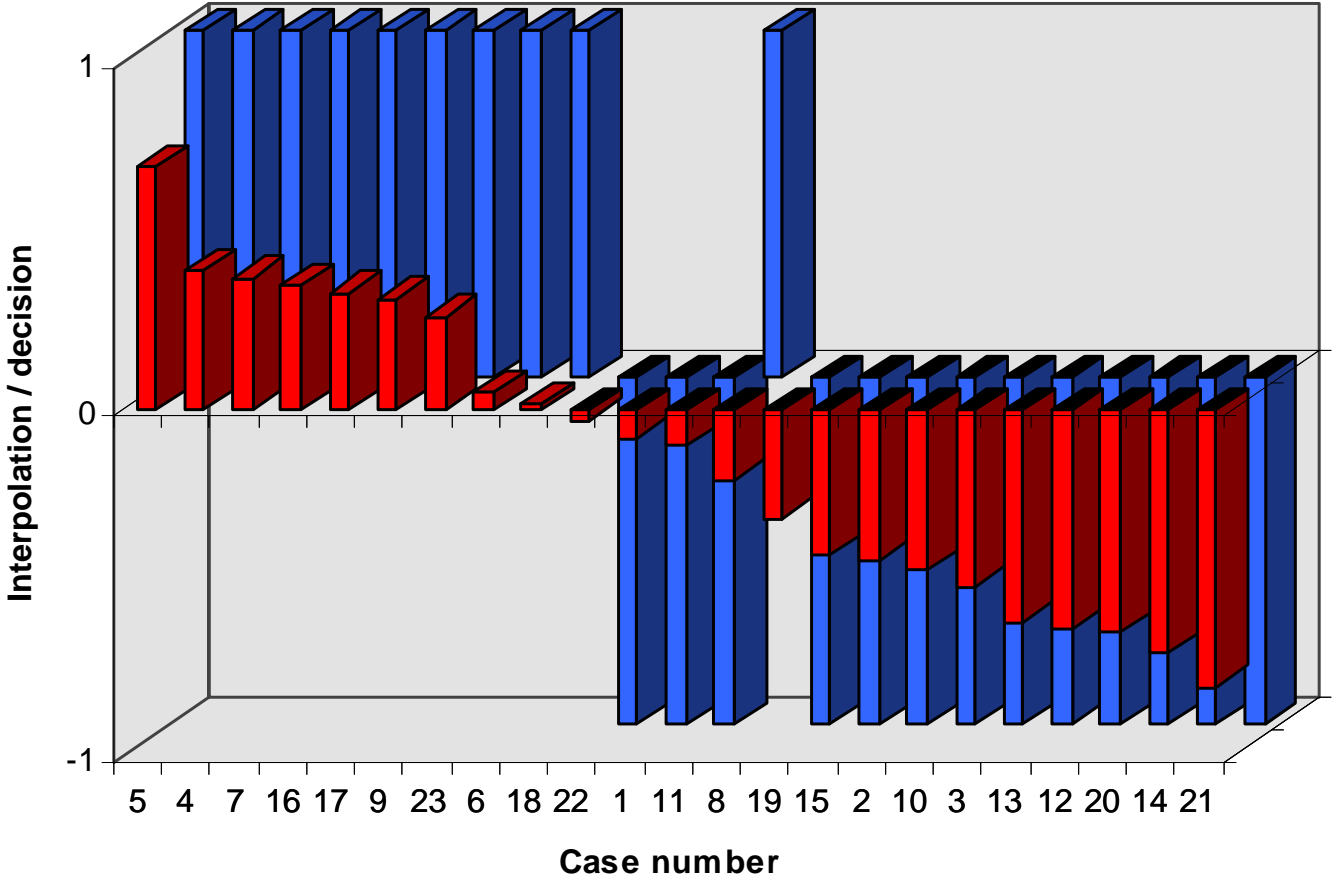
Cases, ranked according to decision



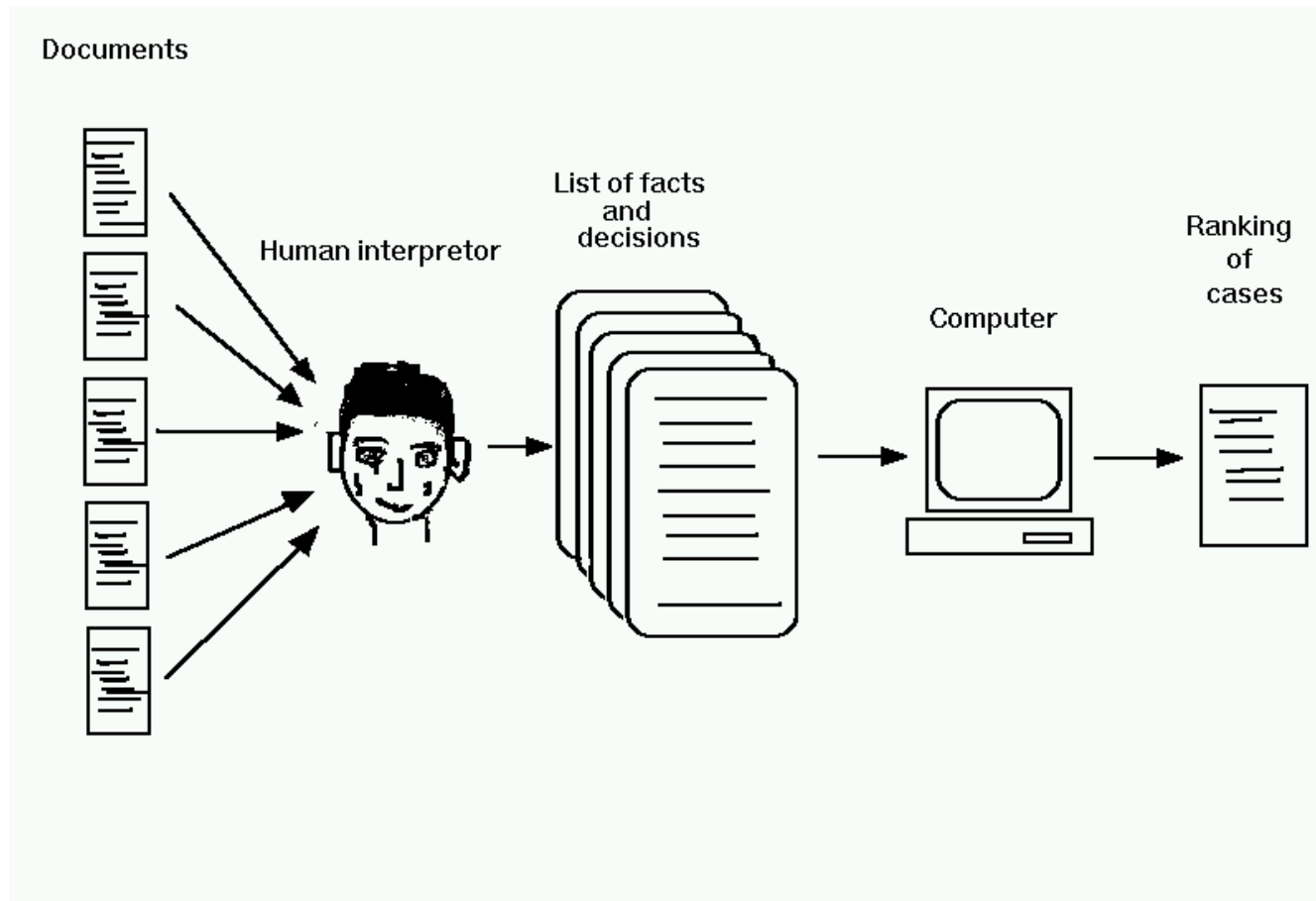
Cases, ranked on the basis of the facts



Cases, ranked on the basis of the facts



Analysis of case law



Conceptual Legal Information Retrieval

Concepts in law versus concepts in science

Concepts in law

- opinion
- subjective
- authority
- volatile
- equivocal
- generated by case law and jurisprudence
- normative, deontic content
- for practical purposes

Concepts in science

- fact
- objective
- validity
- fixed
- unequivocal
- generated by empirical observation and through strict convention
- alethic, truth value
- for scientific purposes

Boolean versus conceptual search

- Boolean
 - yes or no
 - fixed terms
 - or logical combinations
 - extension (properties)
- Conceptual
 - degree of relevancy
 - ideas
 - questions in natural language
 - intension (examples)

The object of the search operation?

- data
- information
- knowledge
- documents (potential information)

- text-documents

Definition of concept

- A set of objects
- A set of documents
- A pair of sets of documents:
- examples and counter-examples

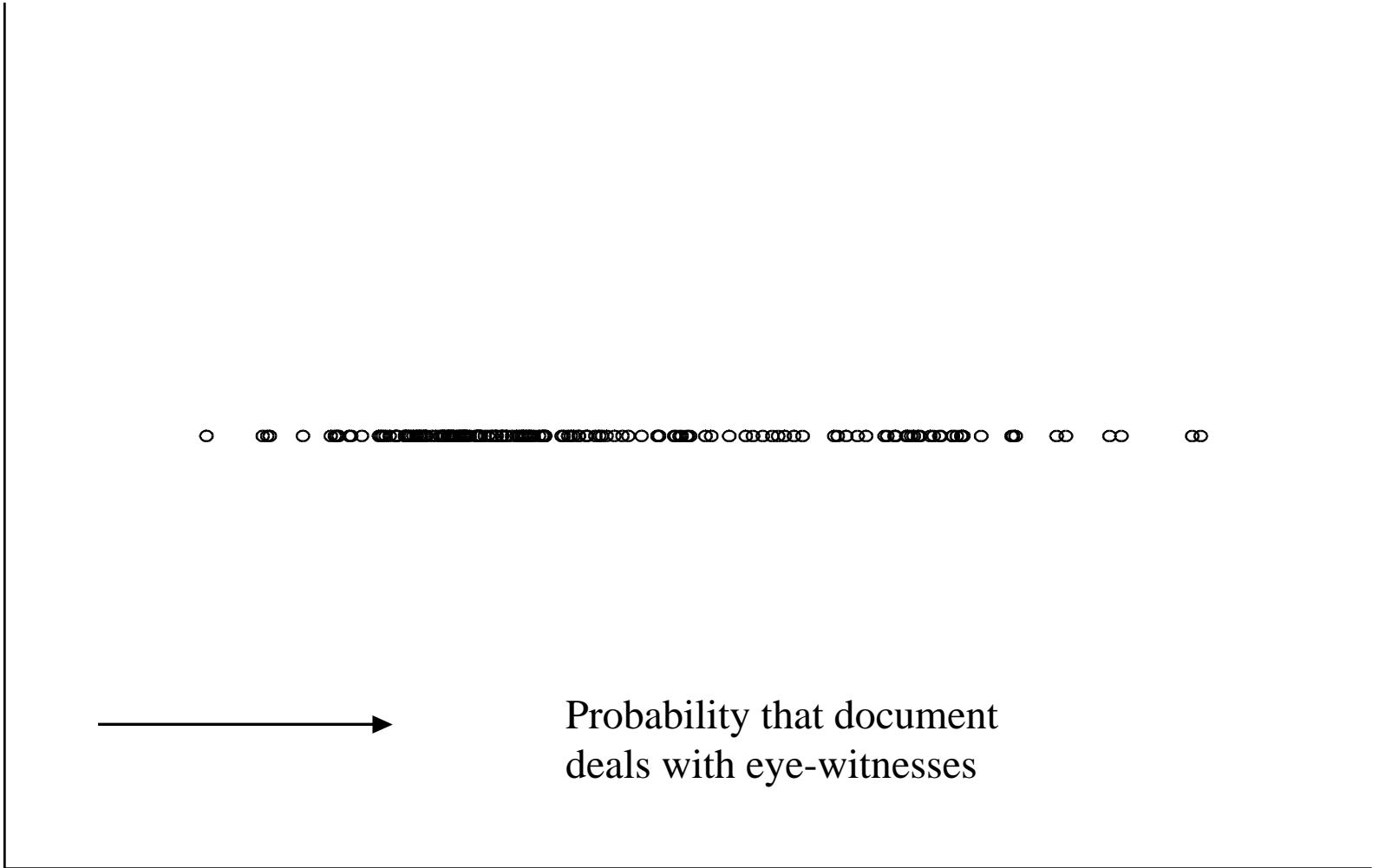
Procedure within conceptual systems

- The user enters examples and counter-examples
- The concept gradually becomes clearer
- Examples and counter-examples together form a “higher” concept
- In this way a hierarchical structure of concepts is formed

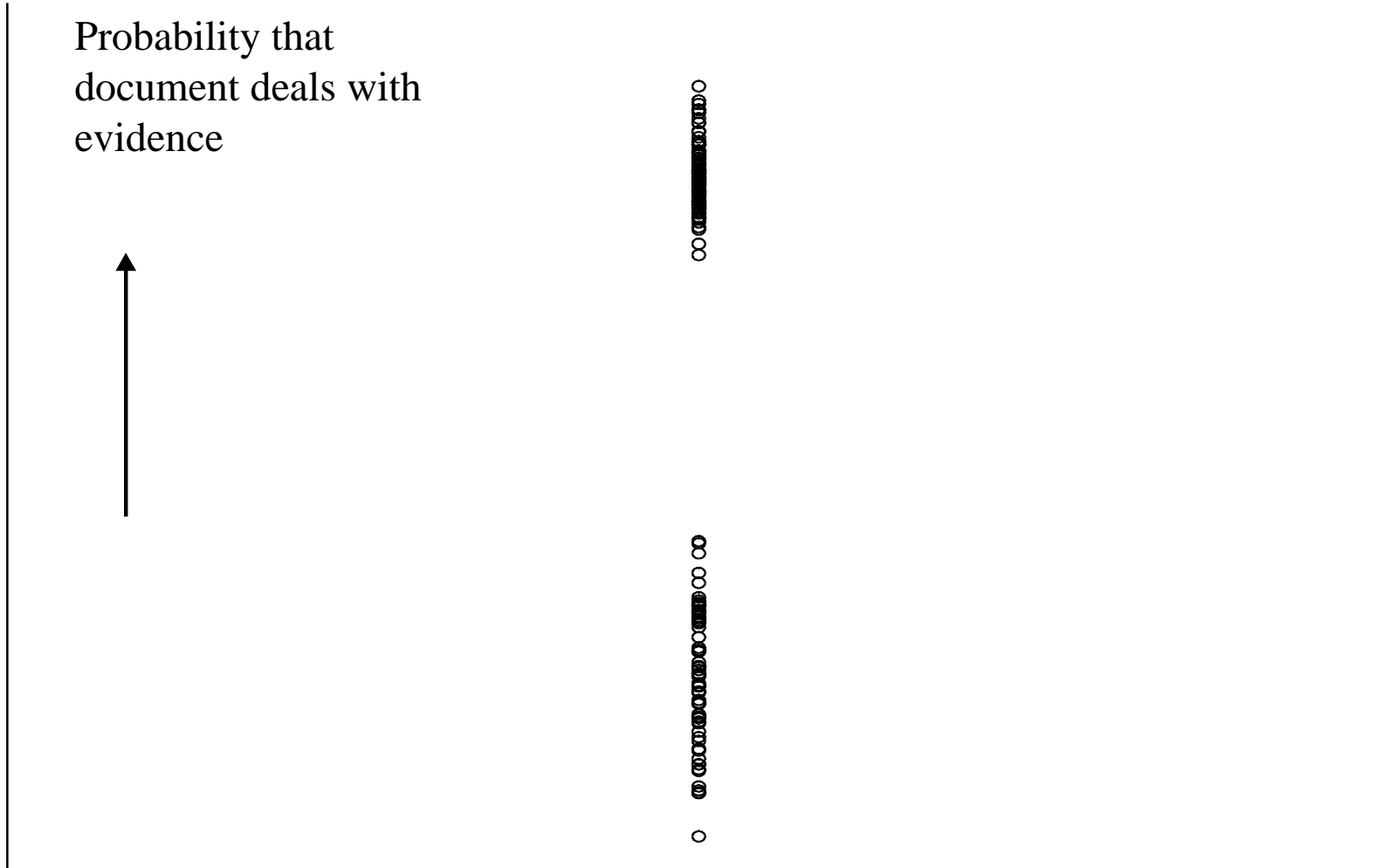
Features of conceptual search systems

- the system **learns** from the user(s)
- the user can provide **examples**
- the system **ranks** the documents found
- the user can also provide **counter-examples**
- clear concepts give a clear distinction between relevant and irrelevant documents
- a **classification** can be build
- there is a **grafical** interface

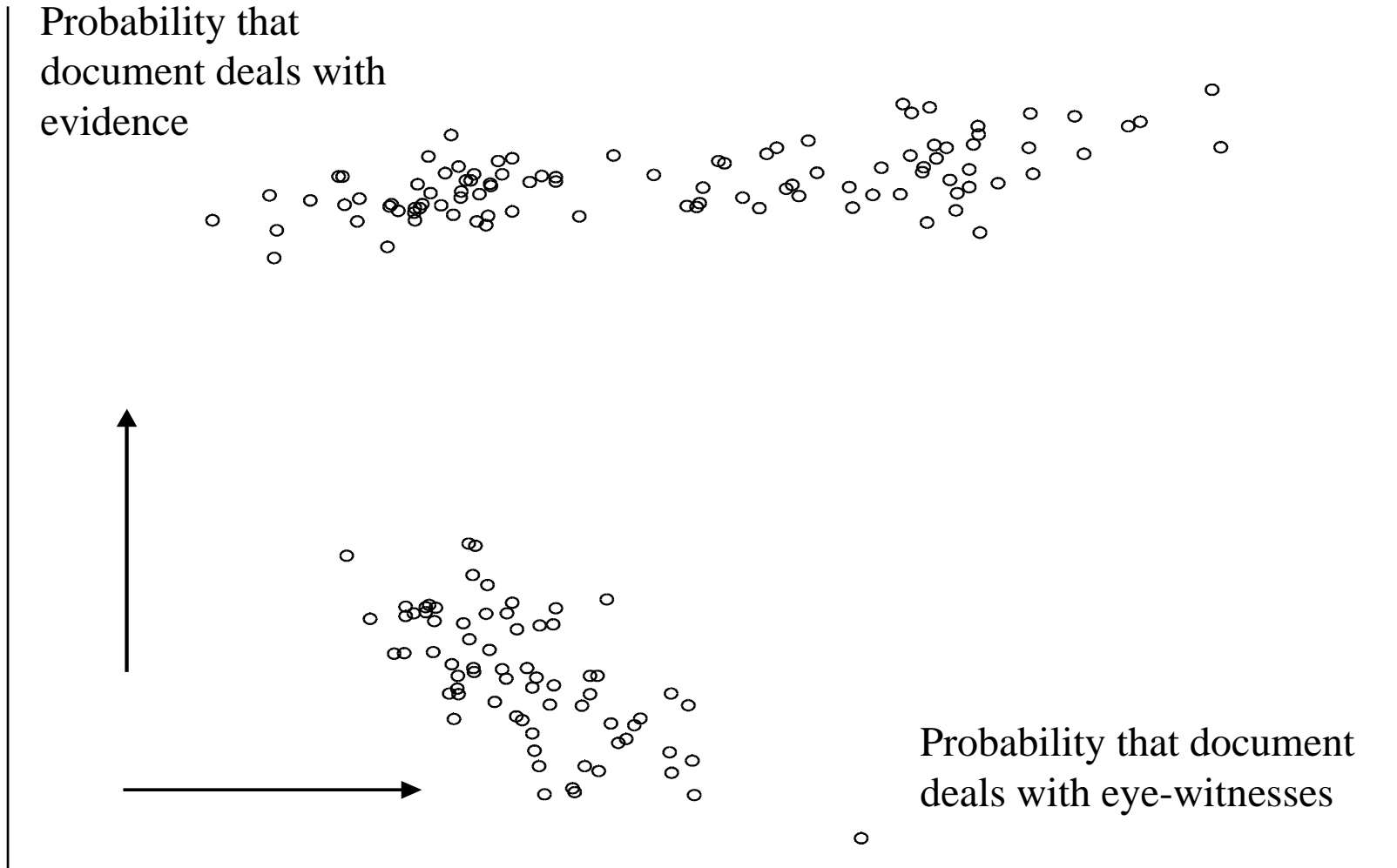
Relevance on x-axis



Relevance on y-axis

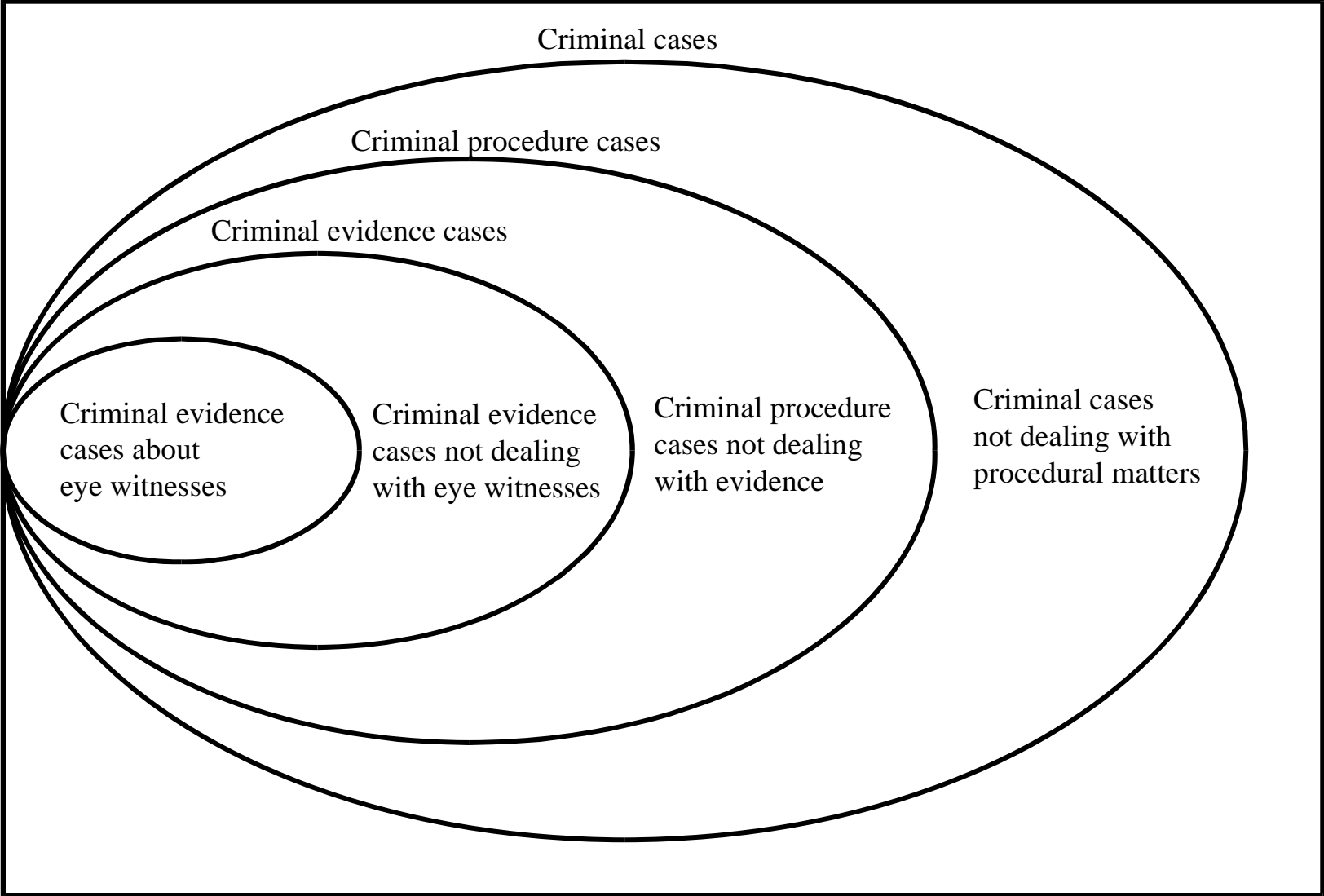


Relevance combined on both axes



Classification of legal cases

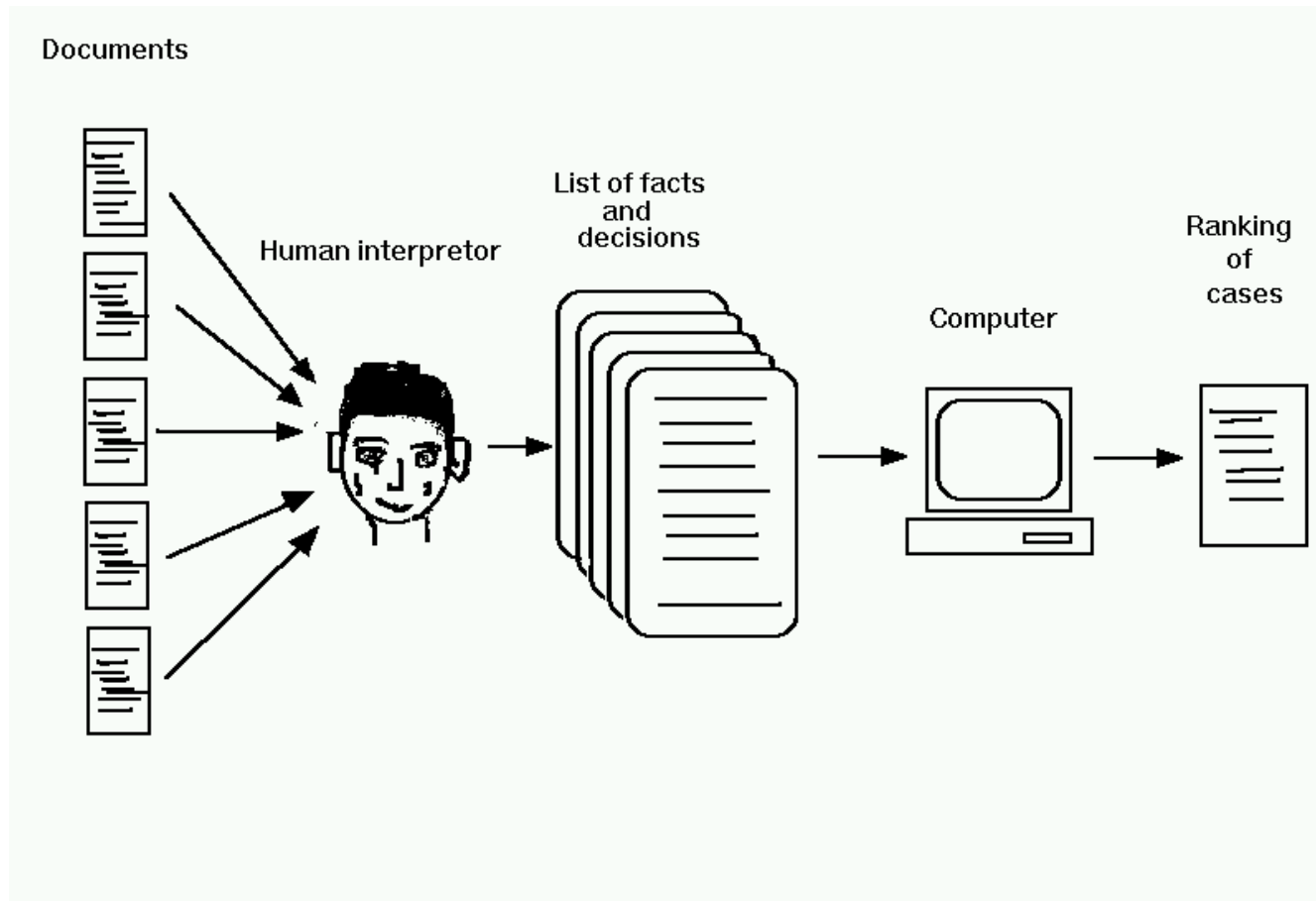
Universe: all cases in database



The importance of graphical presentation

- The system deals with a lot of information (possibly many documents, examples, counter-examples and other documents)
- The system is an interface between computer and person
- The human brain understands pictures well
- Clear pictures indicate clear concepts

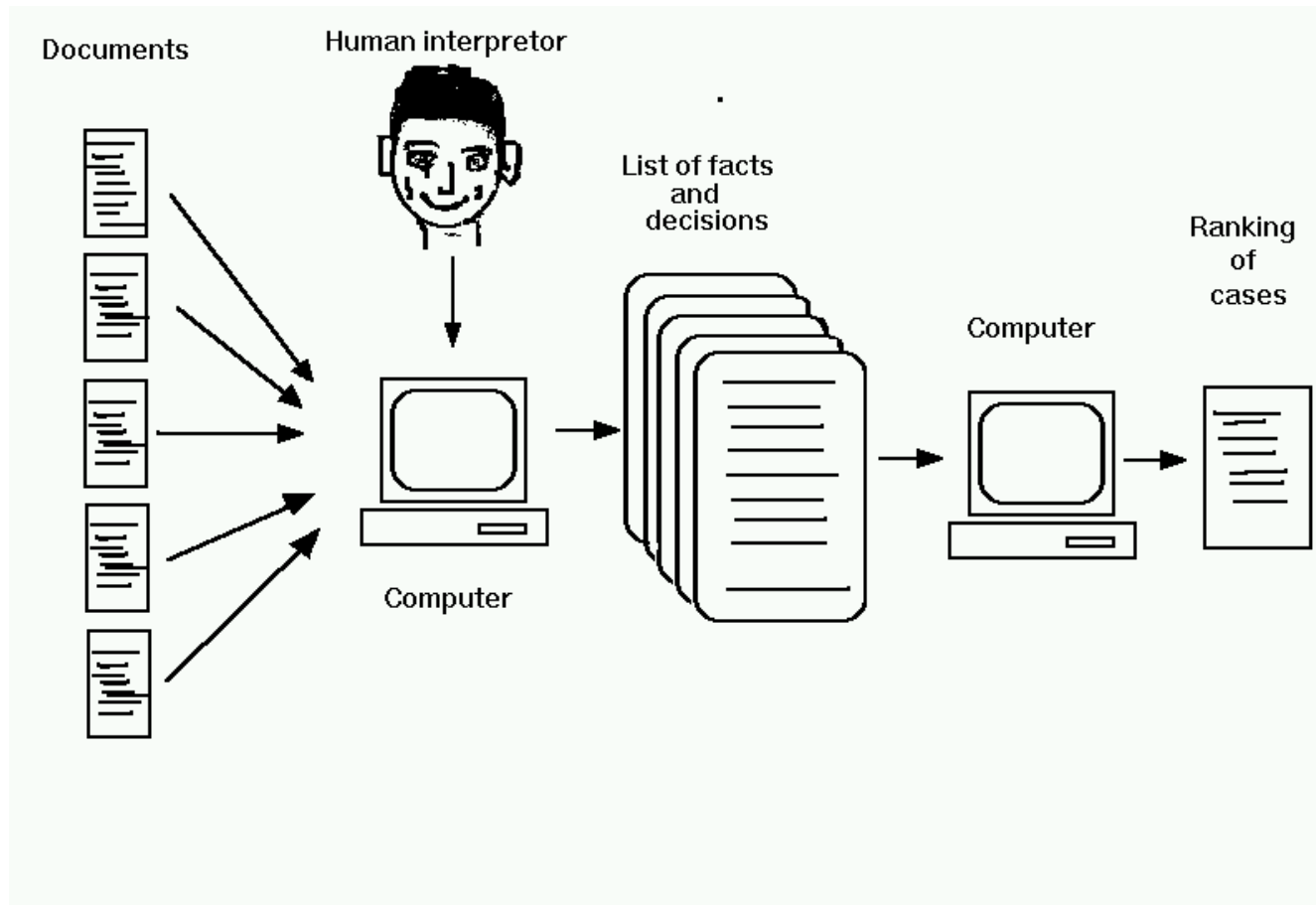
Analysis of case law



Steps in the analysis of case law

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Analyse of case law - with conceptual help



The Future

- Almost all case law will be available in digital form
- Conceptual systems can deal with this
- Conceptual systems can be used for advanced *jurimetrical* research
- Computer aided *case prediction* will become possible.

Attitudes toward technology

	affective	cognitive
irrational	fear	opposition
<i>Old School</i>	<i>forbid it</i>	<i>regulate it</i>
rational	leadership	management
<i>New School</i>	<i>integrate it</i>	<i>facilitate it</i>

New School of Law and Technology

	Management (effectiveness)	Leadership (vision)
Technology	lawyers will <i>use</i> it	lawyers will <i>innovate</i> with it
Law	The law will <i>facilitate</i> technology	The law will <i>integrate</i> technology

Conclusions

Conclusions

- Knowledge management has become important, also in the legal world
- Case law information can be dealt with in a jurimetrical way
- Conceptual retrieval systems will keep the increasing amount of digitally available case law accessible
- These systems will also help in advanced jurimetrical research
- New School of Law and Technology embraces these new techniques
- This is not only rational, as money can be made with it, but also essential, as innovation is a necessity for organisations
- Innovation is related to *leadership*, lawyers must start to work on this.

<http://www.newschoollawtech.com>

<http://www.erasmusacademie.nl/leadership>

That's all folks!

