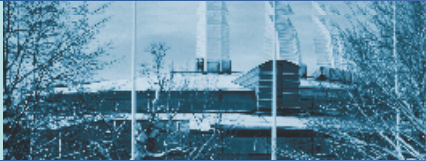


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Legal Risk Analysis in Drafting of Legislation and Contracting

Peter Wahlgren

Why is there such a thing as legislation?



Possible answers

- Individuals, enterprises and societies try to avoid dangers
- Humans are imperfect social creatures
- Balance interests
- Need to be able to plan ahead (predictability)
- Need to handle changes
- Trust

Possible interpretation

There is a need to handle risks

Why is there such a thing as contracting?



Possible answers

- Need to identify parties
- Need to define obligations and objectives
- Balance interests
- Documentation
- Define sanctions and secure access to conflict resolution
- Create trust

Possible interpretation

There is a need to identify and manage risks

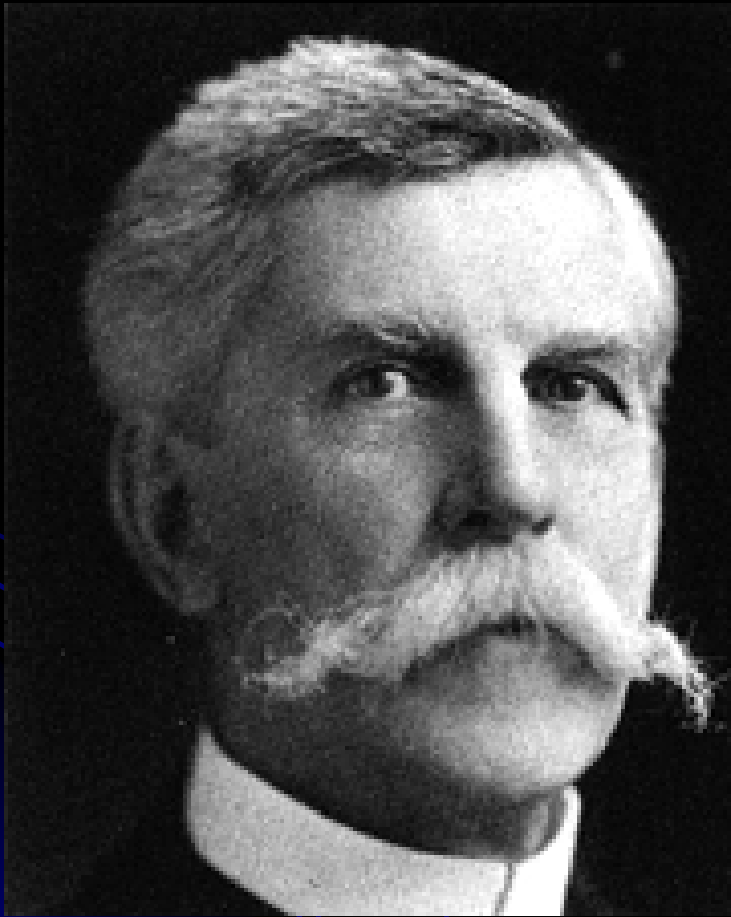
Traditional Legislative Strategy



Reactive/repairing (sanctions and restoring)

The traditional strategy is a rather unique approach:

Compare other sectors, e.g. economy, transports, construction, medicine, insurances, etc.



For the rational study of the law the black-letter man may be the man of the present, but the man of the future is the man of statistics and the master of economics.

Oliver Wendell Holmes, Jr.
1897

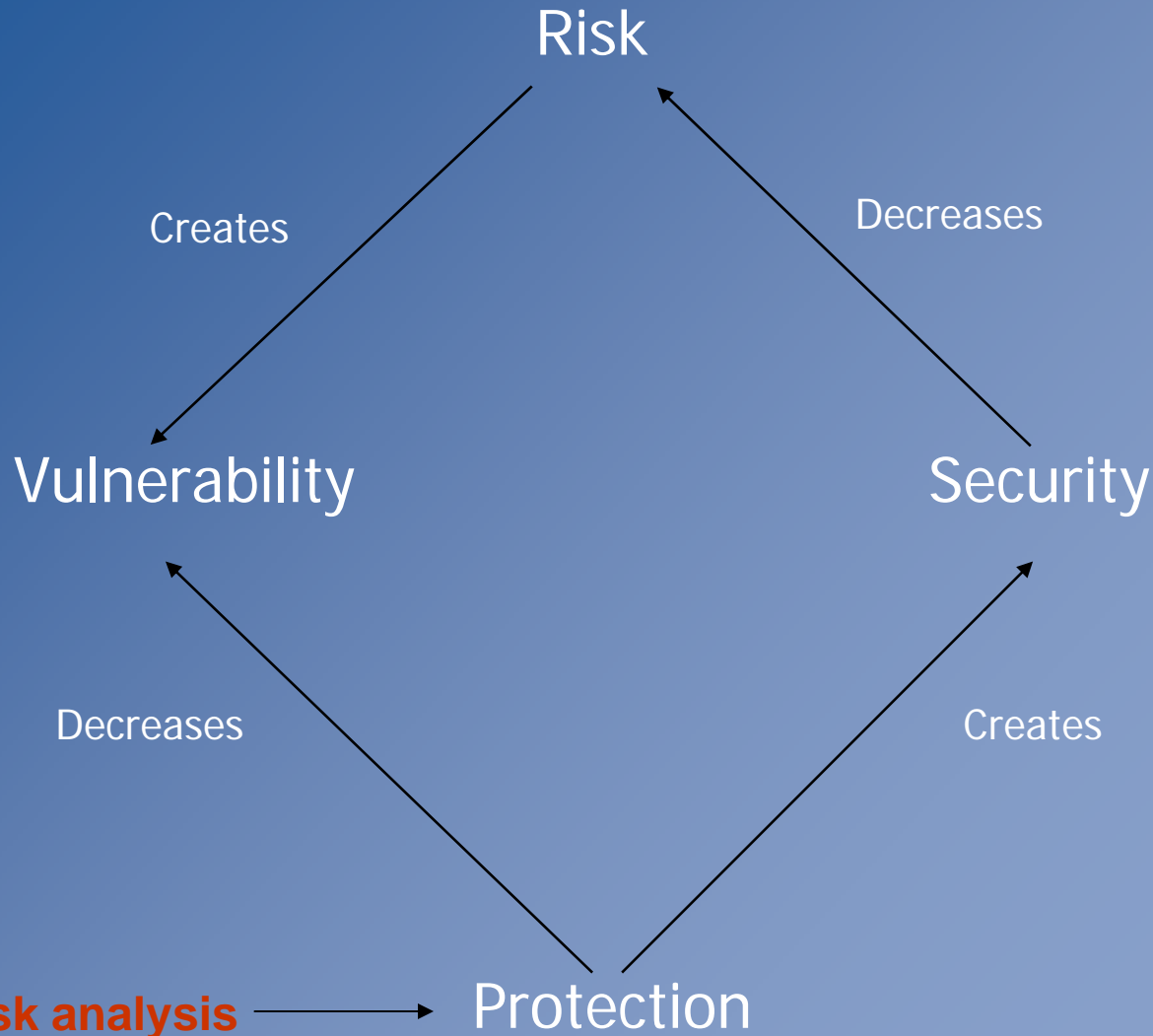
Possible complementary approach



Risk analysis as a proactive tool

- In legal reasoning/analysis
- In the drafting of legislation
- In contracting

What is a Risk?



The concept of risk



What is a risk?

Possibility of loss, injury, interruption,
disadvantage or destruction

Risks should not always be avoided

Good risks – bad risks

What is a good risk?



Good risks can, although they *may* inflict negative consequences, lead to positive effects. Examples are investments, uncertain development projects, legal processes and applications.

Risks of this kind are sometimes labelled manufactured or dynamic risks.

Manufactured risks should not be avoided. The objective is to identify and control them.

In practice this is accomplished through legal analysis, drafting of legislation and contracting.

How to estimate risks?

Effects

Disaster

Critical incident

Serious incident

Marginal injury

Negligible



How to estimate risks?

Likelihood of occurrence

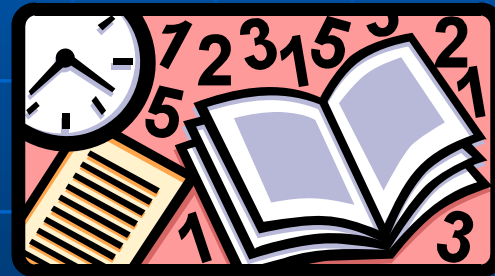
Obvious

Very high

Possible

Small

Negligible



How to estimate risks?

Costs to avoid

Unbearable

Very high

Reasonable

Low

Negligible



How to estimate risks?

Effects	Likelihood of occurrence	Costs to avoid
Disaster	Obvious	Unbearable
Critical incident	Very high	Very high
Serious incident	Possible	Reasonable
Marginal injury	Small	Low
Negligible	Negligible	Negligible

How to estimate risks?

Effects	Likelihood of occurrence	Costs to avoid
5	5	5
4	4	4
3	3	3
1	2	2
1	1	1

Strategy: eliminate all risks e.g. $\sum > 10$

How to estimate risks?

Insurance cost

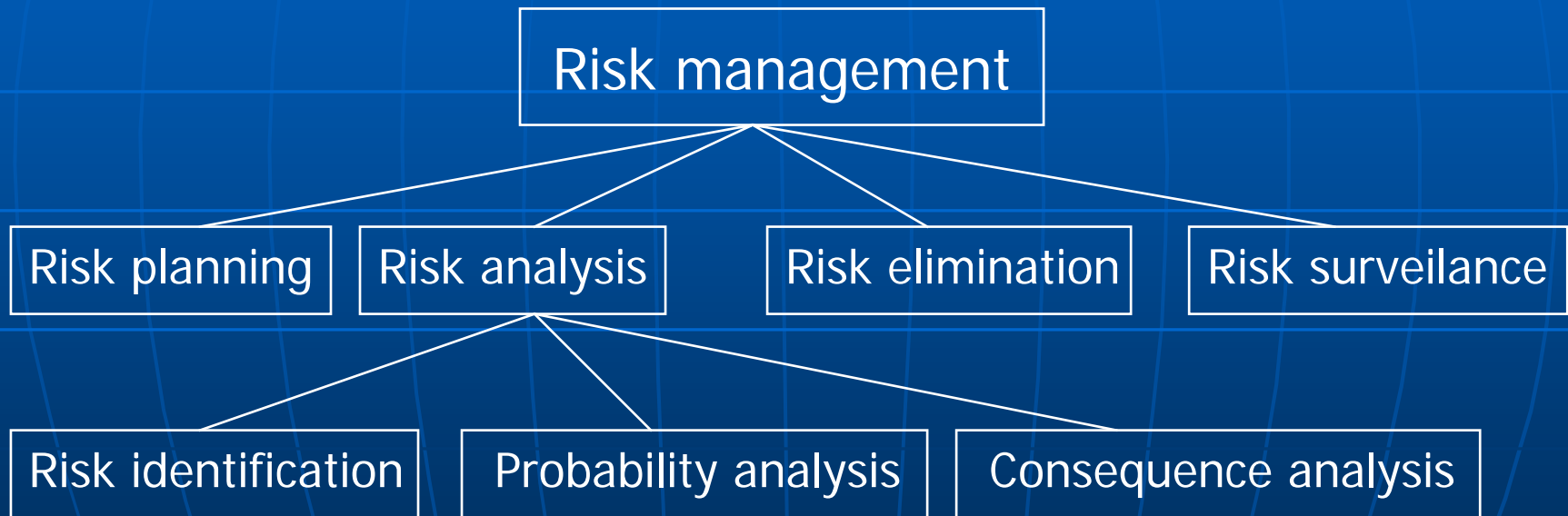
Protection cost

Administration cost

+ Damage cost (incident cost x frequency)

= Total risk cost

Risk analysis/-management



Risks related to IT

E.g. Procurement

specifications

quality/functionality

deliveries

liability

legislation / jurisdiction

competence

etc

Risks related to IT

E.g. Customers - clients

privacy

trust

freedom of information vs secrecy

inflexibility

data quality

Risks related to IT

E.g. Service providing

interruptions

documentation of system

inflexibility / lack of standards

attacks

employees

etc

Risks related to IT

E.g. Employees - end users

goal conflicts

privacy

competence

education

Vulnerability

dependence

Methods for risk analysis 1

Statistics/ numerical methods

Risk exposure studies

Fault tree analysis / graphical methods

Checklists

Matrix models

Flow charts/organisational plans

Combinations

Methods for risk analysis 2

Probability trees

Incident investigations

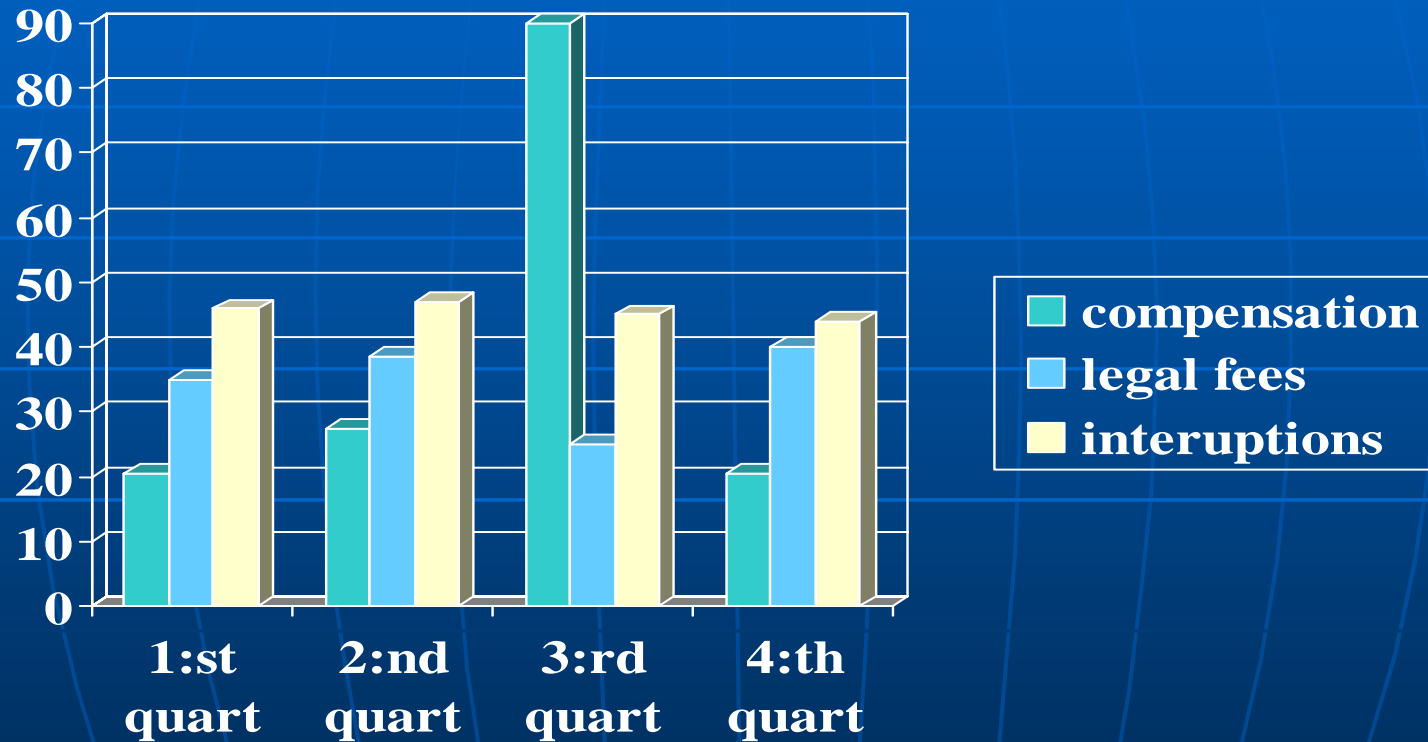
Testing (of persons and equipment)

Analysis of decision processes

Analysis of hazards and operations (HAZOP)

Creative thinking, brain storming, Delphi studies

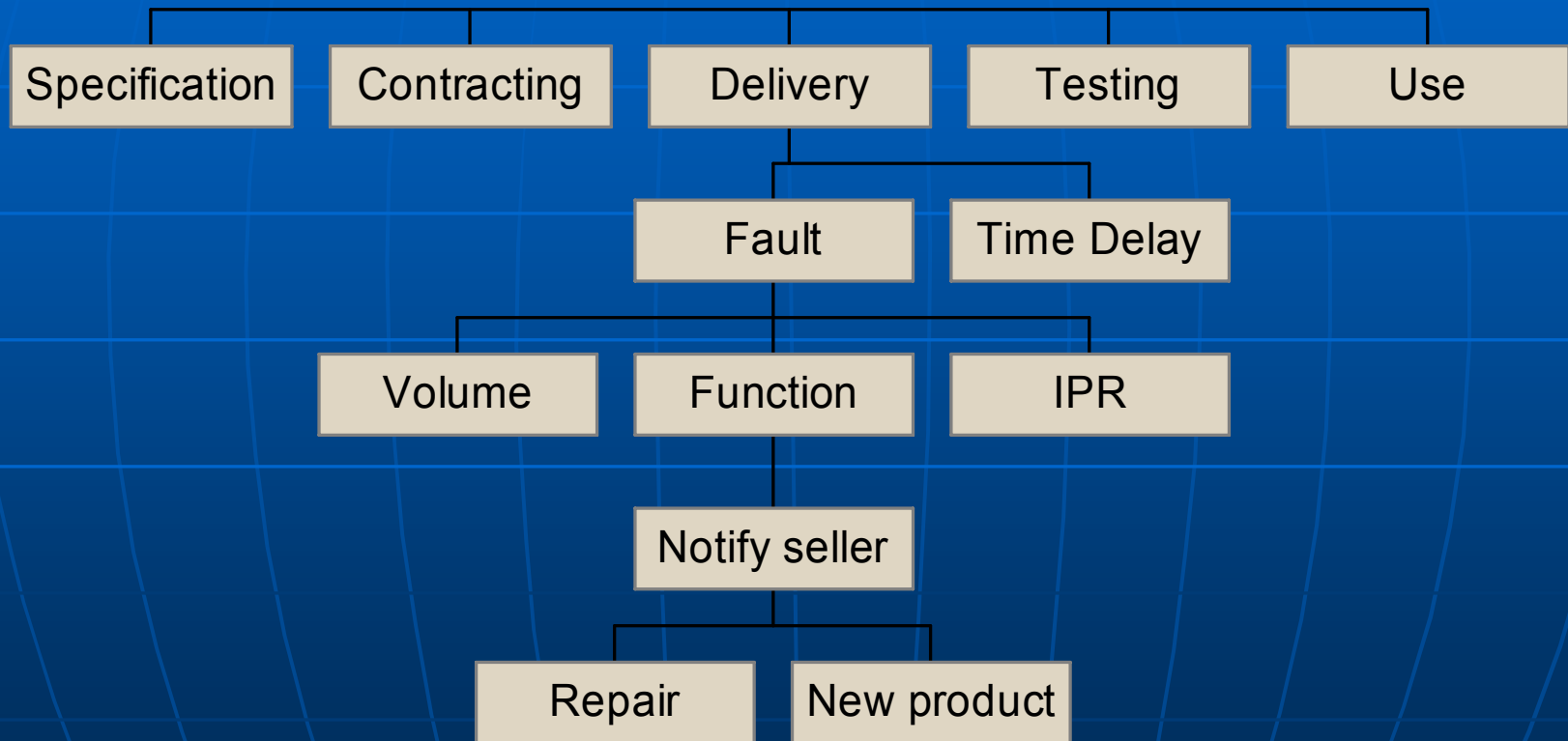
Statistical methods



Statistical/numerical methods

- + Computable, results improve over time as data are aggregated, pedagogic, well known
- Severe risks can have very low frequency and be underestimated, problems with quantification, can be manipulated, psychology, ethics

Fault tree analysis



Fault tree analysis

- + Several categories of persons in an organisation can work with the scenario from various perspectives, can be developed step by step
- Can become difficult to summarise, focus on isolated occurrences, Difficult to find consensus about details, psychology

Flow Charts



Graphic methods

- + Can be developed step by step, provide overview, may function as checklists, help to identify simplifications, powerful tool for analysis
- Can become too complex, may be difficult to find consensus

Check lists

Actors

Check

Vendors

Contracts, Contract Act, Sale of Goods Act

Competitors

Marketing Act, Trade Mark Act

Customers, Clients

Personal Data Act, Register Acts

Authorities/State

Freedom of information, secrecy,
Administration Act, Taxation

Employees

Employment Act, Collective agreements,
personal employment contracts

Unknown

Criminal Code, Torts

Check lists

- + Established, easy to understand, general, can be used in all situations
- Presupposes initial in-depth analysis can become boring routine

Matrix models

	Liability	Bankruptcy	IPR issues	Privacy	Secrecy	etc
Own org					☠	
Hardware-provider		☠			☠	
Telecom-operator						
Software-provider			☠ ☠ ☠			
Consultants						
Public authorities					💣	
Employees					💣	
Customers/clients		☠				
etc						

Matrix models

- + Several aspects can be combined (e.g. risk, likelihood & effects), Very systematic
- Time consuming, rigid, always several irrelevant cells

Risk Exposure Studies - Step 1

Identify risks (e.g. Related to development)
Drafting of legislation or contracting

Understanding of organisation (e.g. flow chart analysis)

Understanding of requirements (e.g. fault tree analysis)

Goal orientation - expectations – conflicts

(e.g. scenario analysis)

Selection of technique (e.g. matrices)

Competence (e.g. statistical investigation of performance)

Risk Exposure Studies - **Step 2**

Investigate how identified risks concerning organisation, requirements, goal expectations, technical standards, and competence affect system development or legislative drafting projects, by means of using e.g. Creative thinking, Brain storming, Delphi studies

Combinations!

Objective

- Aggregate knowledge of when and in which legal circumstances various risk analysis methods are efficient
- Develop customized legal risk analysis methods

The importance of representations forms in the legal risk analysis process

In addition

As mentioned by Professors Jones and Seipel this morning:

The possibilities to embed legislative solutions in ICT systems, i.e. create protection by means of employing formal representations

Difficulties

Habits

Formalisation

Education

Insecurity

Costs

Negative influence

Clients expectations

Documentation

Legal role models