

A large, crumpled red tarp covers a sculpture on a wooden pier overlooking the ocean. The tarp is the central focus, with its bright red color contrasting against the muted tones of the sky and water. The pier's wooden planks and a metal railing are visible in the foreground and middle ground. The background shows a vast, calm sea under a grey, overcast sky.

**LEGAL EFFECT IN
COMPUTATIONAL
LAW**

**MIREILLE
HILDEBRANDT**

OXFORD



LAW FOR
COMPUTER
SCIENTISTS
and OTHER FOLK

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TAKING LAW SERIOUSLY

THE book



AGENDA

1. Defining legal effect
2. Legal norms, moral norms
3. Causality, influence, control, regulation
4. Speech act theory
5. Positivism, hermeneutics
6. Legal analytics and legal effect

Working definition of legal effect

- The vanishing point of modern positive law:
- Law is explained in terms of legal effect
- Difficult to find explicit doctrinal discussions of its meaning
 - *what it is*
 - *what it does*

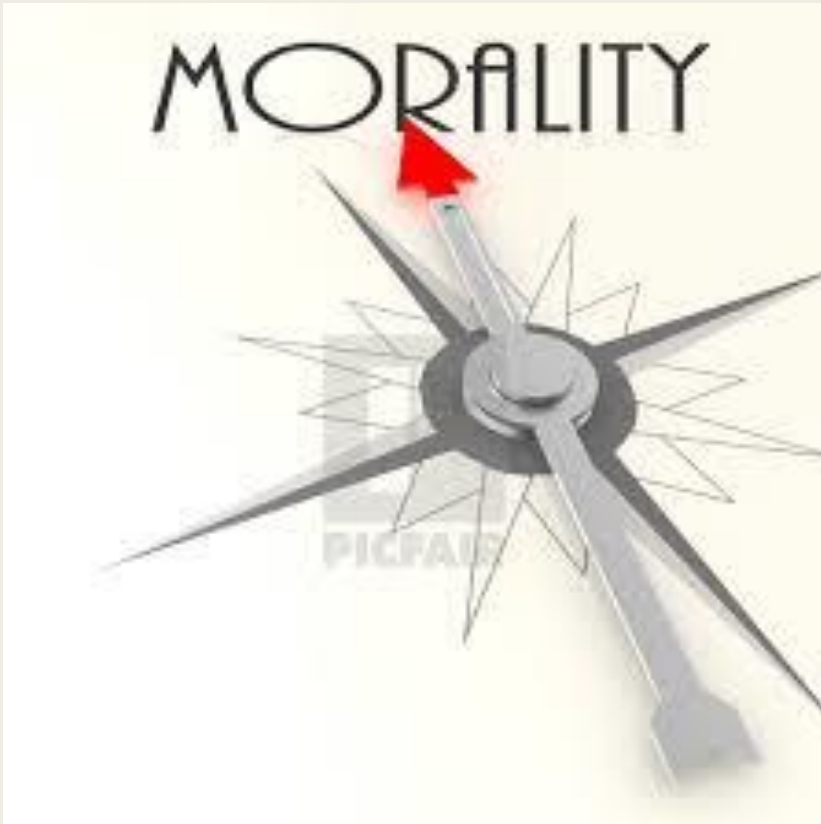
Working definition of legal effect

- the consequence of a legally relevant fact, attributed by positive law, consisting in a change in the legal status of a legal subject, e.g. a change in their legal powers, their rights or obligations:
 - *this can entail e.g. the attribution of a right, the voidance of an obligation, or the qualification of some state or behaviour as either lawful or unlawful;*
- the attribution of legal effect is brought about by a legal norm that consists of a set of legal conditions (Tatbestand) that attribute the legal effect if the conditions are fulfilled;

Working definition of legal effect

- the attribution is neither caused nor logically inferred; it is performative in the sense of speech act theory;
 - *for instance, fulfilling the conditions that constitute a criminal offence have the legal effect of being punishable, not of being punished (which is another matter);*
- the set of legal conditions (Tatbestand) that result in a legal effect are specified in positive law, more precisely in a source of law: legislation, case law, customary law, or fundamental principles
- as positive law depends on the relevant jurisdiction, legal effect in turn differs per jurisdiction, even if some legal effects may apply in many jurisdictions

moral norms



- Norms: IFTTT
- E.g. Kant's categorical imperative:
 - *Act in such a way that you always treat humanity, whether in your own person or in the person of any other, never simply as a means, but always at the same time as an end.*
- Dworkin's sovereign virtue of political community:
 - *Governments must show each of their citizens equal respect and concern*

legal norms



- Norms: IFTTT
 - *If one processes personal data without a legal basis such processing is **unlawful** (if EU jurisdiction applies)*
 - *If a contract of sale is concluded, this results in (1) an **obligation** for the buyer to pay a price and an **obligation** for the seller to transfer ownership or to provide a service; and (2) a **right** for the buyer to have ownership transferred or to be provided with a service, and a **right** for the seller to be paid the price (depending on the relevant jurisdiction)*

legal norms



- Norms: IFTTT
 - the **legal effect** of processing personal data without a legal basis is that such processing is *unlawful* (e.g. if EU jurisdiction applies);
 - a contract of sale usually has the **legal effect** of (1) an **obligation** for the buyer *to pay a price* and an **obligation** for the seller *to transfer ownership or to provide a service*; and (2) a **right** for the buyer *to have ownership transferred or to be provided with a service*, and a **right** for the seller *to be paid the price* (depending on jurisdiction)



what effect is ‘legal effect’

- Causality?
 - *Does sale ‘cause’ legal obligations?*
 - *In terms of legal analytics, maybe yes*
- Influence?
 - *Is this about sale ‘influencing’ parties behaviour?*
 - *Scandinavian legal realism, yes*
- Control?
 - *Is this about government ‘control’ over a population?*
 - *Legal norms as coordination rules, maybe yes*
- Regulation?
 - *Is it about standard setting, monitoring and modification?*
 - *If you are a behaviourist, maybe yes*

Speech Act Theory

- This is a foggy day (locutionary)
 - *Describing what you think is the case*
- It is a foggy day, take a raincoat (perlocutionary)
 - *Trying to influence others*
- On a foggy day, car drivers must take into account they can't see very far ahead, if they don't and cause harm they are liable (illocutionary)
 - *Attribution of legal effect*



Speech Act Theory

- Illocution has performative effect
 - *It does what it says*
 - 'I declare you husband and husband'
 - 'I concede defeat in the presidential elections'

- Performative speech acts:
 - 'do things with words' (Austin)
 - create 'institutional' facts (Searle)
 - create the institutional normative order that is law (MacCormick)
 - modern positive law and the rule of law depend on written and printed speech acts (Hildebrandt)



legal positivism

- **Formal legal positivism:**
 - *separation thesis*
 - *internal validity of law*
 - *focus on legal certainty*
 - *connects with legalism*
- **Sociological legal realism:**
 - *external perspective*
 - *sociological positivism*
 - *focus on behaviour*
 - *focus on causalities*



hermeneutics

- **Hermeneutics:**
 - *ambiguity of natural language*
 - *inherent **multi-interpretability** of text*
 - *hermeneutic circle: context matters*
- Hermeneutics evolved with speech acts of text
 - *when the author can no longer control the interpretations*
 - *when different readers develop different interpretations*



hermeneutics

■ Legal hermeneutics (text-driven law):

- *open texture of legal concepts*
- **contestability** core to text-driven law
- **argumentative** nature of legal research
- *legal reasoning: by analogy or 'a contrario'*
- *interpretation: restrictive, extensive*
 - *textual, legal context, legislative intent, teleological*
- **performative** nature of legal certainty
- **closure: legal effect**



legal analytics

■ Search & Compression:

- *Natural Language Processing (NLP)*
- *Machine Translation (MT)*
- *Generative NLP (GPT-3)*

■ Legal:

- *Automated Summaries (relevance)*
- *Predictive Analytics (success rate case, argument, judge)*
- *Argumentation Mining (case law, doctrine)*
- *Computational Law (complexity reduction)*
- *Legal Singularity (enacting equivalent with compliance)*

IF U CN RD THS NOVEMBER 9, 2020 ISSUE

A SPEED-READING APP CONDENSES THE JEFFREY EPSTEIN SAGA

The book-summarizing service Blinkist tried to distill Ghislaine Maxwell's four-hundred-and-sixty-five-page court deposition into a bite-size slab, and skipped the sex toys.

By **Antonia Hitchens**

November 2, 2020

- Blinkist's 'expert readers' mine nonfiction titles to distill them into fifteen-minute audio slabs of what they call 'key insights'; recent top downloads include 'Fire and Fury,' by Michael Wolff; 'Political Order and Political Decay,' by Francis Fukuyama; and 'Becoming,' Michelle Obama's memoir.
- Even 'The Ethics of Ambiguity,' by Simone de Beauvoir, and Immanuel Kant's 'Critique of Pure Reason' have been boiled down into bullet points, a SparkNotes for high-functioning grownups. Take the extracted essence of Joe Biden's 'Promises to Keep': 'Falling in love gave Biden the courage to pursue his ambitions'; 'Slowly, Biden became more engaged in his work in the Senate.'



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Legal analytics

- NLP:
 - *Find/develop a mathematical hypothesis function that connects specific data in your training data (relevant legal text) with other data in the same training set that you want to predict (e.g. judgement) or detect (e.g. relevant case law)*
 - *Supervised or unsupervised, including metadata or other input*
 - *Test the hypothesis function on new data to decide its accuracy*
 - *Compare to a baseline (fifty-fifty; court will mostly decide against applicant or whatever other plausible estimate) to see whether the function does better*
 - ***Use the analytics to make decisions, adapt your brief, advise your client***

Legal analytics

ML is a form of compression; it compresses data into a *mathematical* function

- Depending on
 - *the training data,*
 - *the machine readable task,*
 - *the labelling (feature space)*
 - *the hypothesis space*
- such compression will differ.
- There are *trade-offs*: speed, computational needs, energy efficiency, accuracy, precision and sensitivity, explainability, reliability

Legal analytics

ML is a form of compression; it compresses data into a *mathematical* function

- How do the assumptions underlying ML relate to those underlying the law?
- How do design choices impact legal decision-making?
- What trade-offs would agree with a responsible legal practice?
- What does it mean that Westlaw Edge is proprietary?
- What performative effects will the use of legal analytics have on legal practice?
- Who decides on legal effects?
- Who decides on the performative effects of legal analytics?

Legal analytics under the rule of law

1. What kind of performative effect does text-driven law *afford*?
2. What kind of performative effect does data-driven law *afford*?
3. How would legal analytics transform positive law?
4. How could legal analytics transform *the mode of existence of law*?
5. What kind of safeguards must be built into legal analytics?
6. How could we achieve *legal protection by design*, instead of legal by design?

The end(s) of

