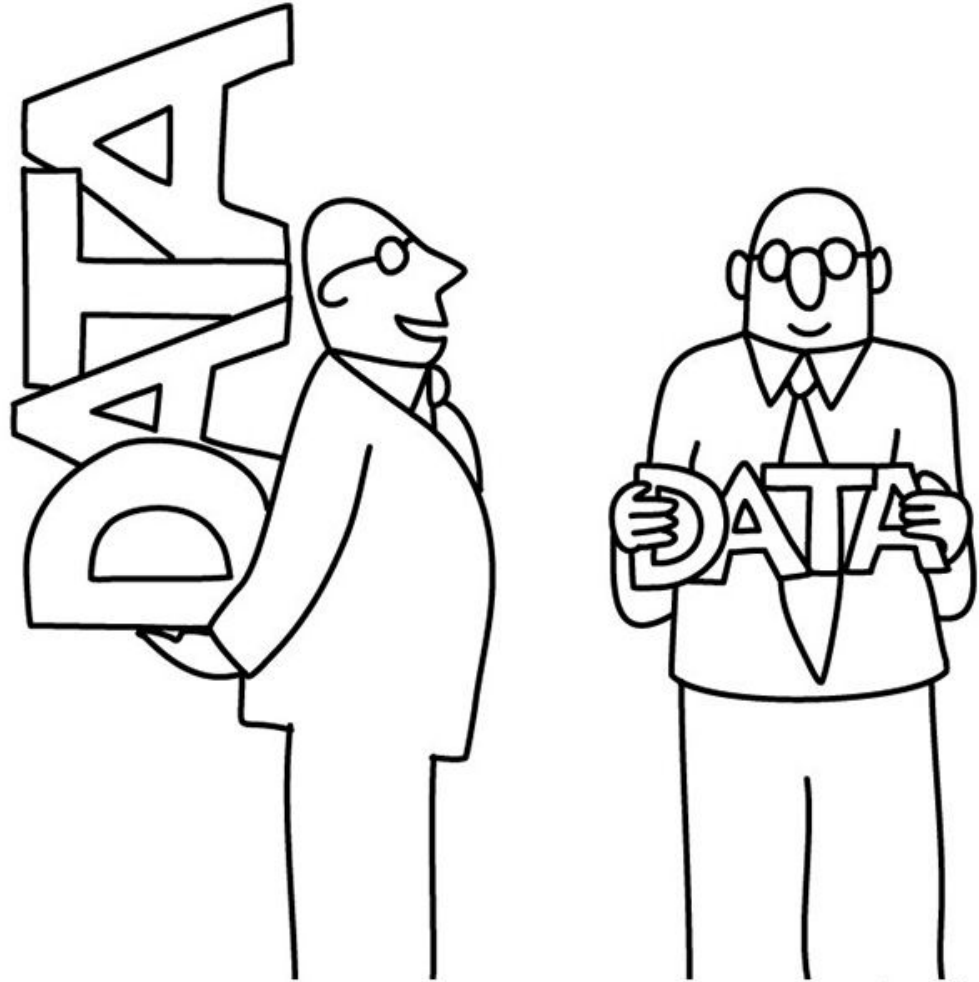


ACCESS TO LEGAL INFORMATION: OPENING PANDORA'S BOX



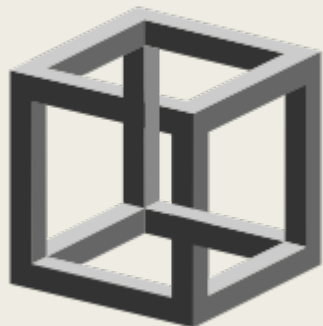
COHUBICOL



timoe Elliott.com

“I think you’ll find that mine is bigger...”

BIG LAW & BIG DATA



Mireille Hildebrandt

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Professor of 'Smart Environments, Data Protection and the Rule of Law',
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What's Next?

1. Information resources and the sources of law
 - *anecdotics*
2. COHUBICOL
 - *Data-driven, code-driven, text-driven law*
3. Pandora's Box:
 - *Difficult to get toothpaste back into the tube*
 - *Black boxing access to law?*
4. The force of law and the force of technology

The difference that makes a difference

(Bateson, one of the founding fathers of cybernetics)

- Wetten.nl **Information Retrieval** (wonderful resource)
 - *Information as content or communication*
 - *Information as novelty, compared to knowledge background*
 - *Connecting legislation with its history and relevant case law*

- **Sources of law:** the authentic legal 'text' that defines positive law
 - *Information as 'informare', shaping societal architecture*
 - *Information with performative effect (it does what it describes)*
 - *Legal conditions and legal effect: the choice architecture of human society*

Anecdotes from the European Legal Space

- Art. 33 Loi Reforme de la Justice: prohibition to use judges names for analytics
- Art. 52(e)(2) draft *Medienstaatsvertrag*: search must be 'discrimination-free'
- CRvB, 15 mei 2019, ECLI:NL:CRVB:2019:1737 (CBBS algorithmic decision-system)

LOI n° 2019-222 du 23 mars 2019 de programmation 2018-2022 et de réforme pour la justice (1)

Section 3 : Concilier la publicité des décisions de justice et le droit au respect de la vie privée

Article 33

Les données d'identité des magistrats et des membres du greffe ne peuvent faire l'objet d'une réutilisation ayant pour objet ou pour effet **d'évaluer, d'analyser, de comparer ou de prédire leurs pratiques professionnelles réelles ou supposées.**

La violation de cette interdiction est punie des peines prévues aux articles 226-18, 226-24 et 226-31 du code pénal, sans préjudice des mesures et sanctions prévues par la loi n° 78-17 du 6 janvier 1978 relative à l'informatique, aux fichiers et aux libertés.

§ 52 Medienplattformen und Benutzeroberflächen

(e) Auffindbarkeit in Benutzeroberflächen

(2) Gleichartige Angebote oder Inhalte dürfen bei der Auffindbarkeit, insbesondere der Sortierung, Anordnung oder Abbildung auf Benutzeroberflächen, nicht ohne sachlich gerechtfertigten Grund unterschiedlich behandelt werden; ihre Auffindbarkeit darf nicht unbillig behindert werden. Zulässige Kriterien für eine Sortierung oder Anordnung sind insbesondere Alphabet, Genres oder Nutzungsreichweite. Eine Sortierung oder Anordnung soll in mindestens zwei verschiedenen Varianten angeboten werden. **Alle Angebote müssen mittels einer Suchfunktion diskriminierungsfrei auffindbar sein.** Einzelheiten regeln die Landesmedienanstalten durch Satzungen und Richtlinien.

- Het Claimbeoordelings- en Borgingssysteem (CBBS) wordt door verzekeringsartsen en arbeidsdeskundigen van Uitvoering Werknemersverzekeringen (UWV) gebruikt bij de WAO/WAZ/Wajong-claimbeoordelingen.
- CBBS heeft een tweeledige functie. Het is primair een instrument voor **het uitvoeren van de claimbeoordeling**. Daarnaast levert het systeem **feedback over deze beoordeling**.
- CBBS vervangt het Functie Informatie Systeem (FIS). Vanaf 1 januari 2002 worden alle WAO/WAZ/Wajong-claimbeoordelingen uitgevoerd met behulp van CBBS.

Articles

PAUL LIPPE, DANIEL MARTIN KATZ & DAN JACKSON*

Legal by Design: A New Paradigm for Handling Complexity in Banking Regulation and Elsewhere in Law

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[NanoEthics](#)

December 2017, Volume 11, [Issue 3](#), pp 307–311 | [Cite as](#)

Saved by Design? The Case of Legal Protection by Design

Authors

[Authors and affiliations](#)

Mireille Hildebrandt 

[Open Access](#) | [Critical Discussion Notes](#)

First Online: 25 August 2017

58

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Abstract

This discussion note does three things: (1) it explains the notion of ‘legal protection by design’ in relation to data-driven infrastructures that form the backbone of our new ‘onlife world’, (2) it explains how the notion of ‘by design’ relates to the relational nature of what an environment affords its inhabitants, referring to the work of James Gibson, and (3) it explains how this affects our understanding of human capabilities in relation to the affordances of changing environments. Finally, this brief note argues that ‘safer by design’ in the case of nanotechnology will require legal protection by design to make sure that human capabilities are reinvented and

COUNTING AS A HUMAN BEING IN THE ERA OF COMPUTATIONAL LAW



COHUBICOL

SAY CUBICLE • THINK WITTGENSTEIN'S CUBE

ON THE PROJECT

RESEARCH BLOG

COMPUTATIONAL LAW

LEGAL PROTECTION

EVENTS

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INNOVATION OF LEGAL METHOD

'It would be nice if all of the data which sociologists require could be enumerated because then we could run them through IBM machines and draw charts as the economists do. However, not everything that can be counted counts, and not everything that counts can be counted'.

William Cameron, *Informal Sociology*, 1963, p. 13

■ **Data-Driven 'Law' (inductive)**

Use of predictive analytics on legal text (case law, statutes, regulation)

- *Argumentation mining*
- *Prediction of judgement*
- *Based on NLP (text mining) or random forests (mining of judges votes) (both supervised ML but otherwise very different assumptions)*

■ **Code-Driven 'Law' (deductive)**

Self-executing algorithmic decision-making

- *Smart regulation (blockchain)*
- *'Traditional' decision-support (decision-trees)*
- *Based on IFTTT logic, painstakingly interpreted and translated*

cohubicol

- Modern positive law = technologically mediated?
- Yes: technologies of the word = text
- **Modern positive law = text-driven law**

cohubicol

- **Text-driven normativity followed orality:**
 - *Distantiation in time and space: author-reader-text-meaning*
 - *Evokes the need for interpretation (death of the author emancipates the text)*
- **The cybernetics of text-driven normativity (control at a distance)**
 - Uniformity of the text across time and space (jurisdiction extended)
 - Natural language is generative because it is ambiguous
 - Need for interpretation implies argumentation and contestation
 - Legal certainty: combination of foreseeability and contestability
 - Text-driven normativity generates closure as well as openings
 - Rule of Law as an affordance of text-driven normativity
 - We cannot take for granted that code- or data-driven law has similar affordances

Pandora's Box

Difficult to get toothpaste back into the tube

- **Once legal tech is employed, it may transform how we understand 'law'**
- Citron: technological due process
 - *Interpretation, translation and execution are conflated*
 - *Enacting, applying, adjudicating law collapses into one big deal*
 - *Checks and balances get lost, redress becomes more difficult*
 - *Those who design the code are legislator, executive and court all at once*

Pandora's Box

Difficult to get toothpaste back into the tube

- **Once legal tech is employed, it may transform how we understand 'law'**
- The accessibility of the binding legal texts within the European Legal space could:
 - *enable forum shopping that may generate a Delaware effect*

Pandora's Box

Difficult to get toothpaste back into the tube

- **Once legal tech is employed, it may transform how we understand 'law'**
- Increasing use of automated decision systems within public administration will pressure legislatures
 - *to articulate statutory law in a way that is amenable to 'codification'*

Pandora's Box

Difficult to get toothpaste back into the tube

- **Once legal tech is employed, it may transform how we understand 'law'**
- The urge to provide 'easy access to clear and consistent law' in combination with 'eTranslation technologies' may result in
 - *monolingualism to the extent that training data focus on English translation*
 - *consistent misinterpretation due to the bugs inherent in eTranslation*

Pandora's Box

Black boxing access to law?

- **Once legal tech is employed, it may transform how we understand 'law'**
- Technical standardisation will open Pandora's box because the law will serve as training data for predictive analytics:
 - *Both for case law of the European courts and for national courts*
 - *This will further increase the ability to engage in forum shopping*
 - *It will also increase the use of legal tech by e.g. Big Law*

Pandora's Box

Black boxing access to law?

- **Once legal tech is employed, it may transform how we understand 'law'**
- Developing and/or purchasing legal analytics is a costly affair
 - *if Big Law gains an advantage this will endanger the foundations of both law and the Rule of Law*
 - *argumentation (based on close reading) will in part be replaced by correlation (based on distant reading)*

Pandora's Box

Black boxes access to law?

1. intentional secrecy

- trade secrets, IP rights, public security

2. current education invests in writing and reading natural language, not in code or ML

- monopoly of the new clerks, the end of democracy, unless ...

2. kmismatch between math-optimization in high-dimensional ML and human semantics

- when it comes to law and justice we cannot settle for 'computer says no'

- Cp. <https://journals.sagepub.com/doi/abs/10.1177/2053951715622512>

Pandora's Box

Black boxing access to law?

- **Once legal tech is employed, it may transform how we understand 'law'**
- Economic incentives will prioritize proprietary analytics, which will co-opt open source initiatives (e.g. Aletras et al)
 - *This will generate black boxes that in point of fact reduce the accessibility of the sources of law*
 - *While also halting and disrupting the development of law, as these systems can only be trained on historical data*

POLICY & LAW SCIENCE US & WORLD

AI program able to predict human rights trials with 79 percent accuracy

by James Vincent · @jjvincent · Oct 24, 2016, 8:05a

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JOURS MODE
JUSQU'À **-30%**
Vêtements - Chaussures - Sacs
Montres - Bijoux - Beauté



Predicting judicial decisions of the European Court of Human Rights: a Natural Language Processing perspective

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ABSTRACT

Recent advances in Natural Language Processing and Machine Learning provide us with the tools to build predictive models that can be used to unveil patterns driving judicial decisions. This can be useful, for both lawyers and judges, as an assisting tool to rapidly identify cases and extract patterns which lead to certain decisions. This paper presents the first systematic study on predicting the outcome of cases tried by the European Court of Human Rights based solely on textual content. We formulate a binary classification task where the input of our classifiers is the textual content extracted from a case and the target output is the actual judgment as to whether there has been a violation of an article of the convention of human rights. Textual information is represented using contiguous word sequences, i.e., N-grams, and topics. Our models can predict the court's decisions with a strong accuracy (79% on average). Our empirical analysis indicates that the formal facts of a case are the most important predictive factor. This is consistent with the theory of legal realism suggesting that judicial decision-making is significantly affected by the stimulus of the facts. We also observe that the topical content of a case is another important feature in this classification task and explore this relationship further by conducting a qualitative analysis.

Predicting judicial decisions of the ECHR: an NLP perspective

- **assumption:** text extracted from published judgments can stand as a (crude) proxy for applications lodged with the Court as well as for briefs submitted by parties in pending cases.
 - *why? published judgments = low hanging fruit*
- **problem: as authors state, facts may be articulated by court to fit the conclusion**
- **cases held inadmissible** or struck out beforehand are not reported, which entails that a text-based predictive analysis of these cases is not possible.
 - *why? admissible cases = low hanging fruit*
- **problem: these cases would probably make a difference which now remains invisible**
- **data:** cases related to art. 3, 6, 8 ECHR
 - *why? provided the most data to be scraped, and sufficient cases for each*
- **problem: impact of framing of the case remains invisible (think e.g. art. 5, 7, 9, 10, 14)**

Predicting judicial decisions of the ECHR: an NLP perspective

Paper declares:

- circumstances and topics are best predictors, combined works best
- law has lowest performance
 - *in case of inadmissibility no law sections*
 - *discussion: facts more important than law*
 - *legal formalism and realism: evidence that legal realism is realistic*

This is nonsense for 2 reasons:

- *the facts, formulated by the court, may be tuned to the outcome*
- *in many cases there is no law section due to an inadmissibility judgment*

The force of law and the force of technology

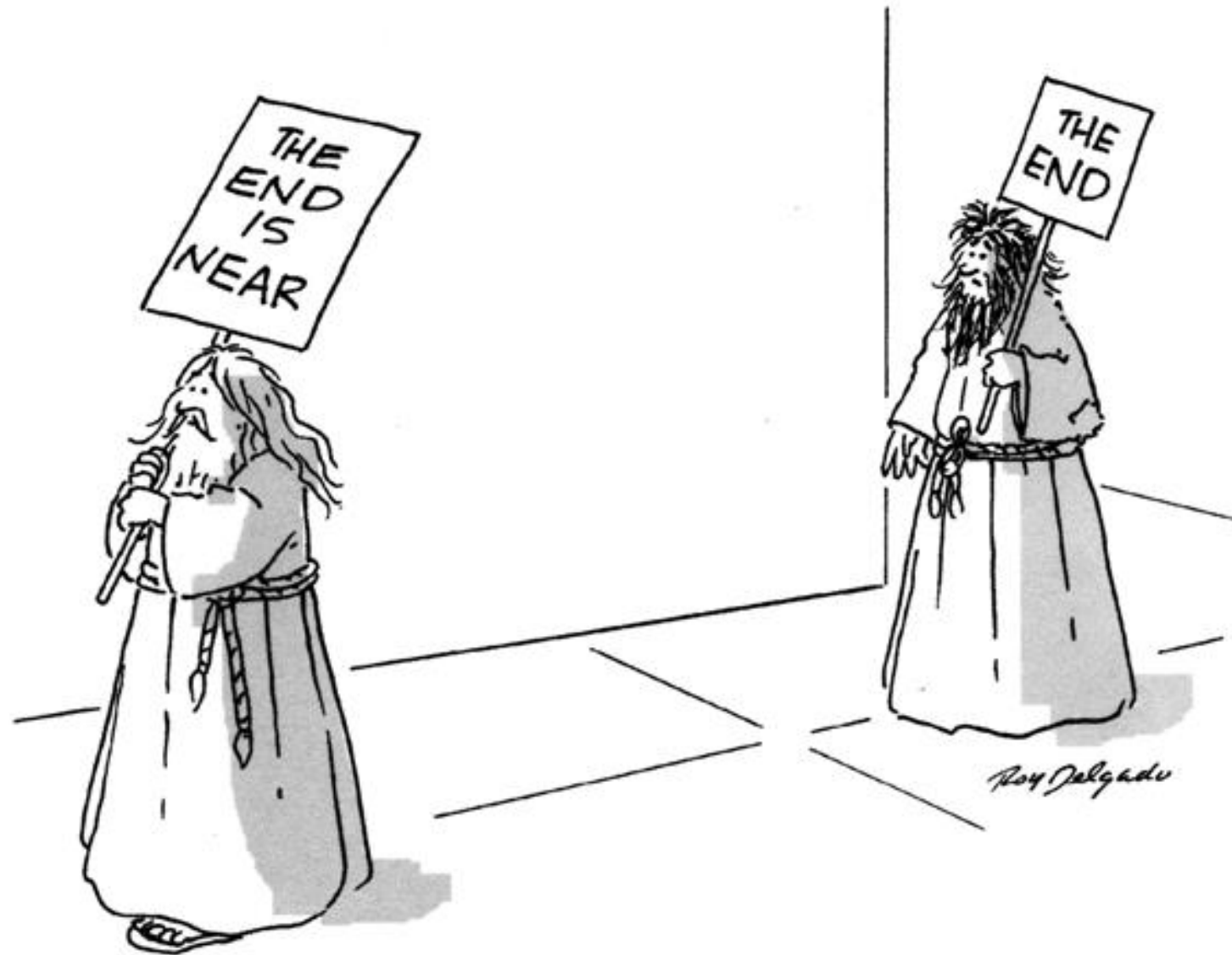
- *The European Forum of Official Gazettes:*
 - *Text with legal effect*
 - *Legal effect = the force of law*
 - *The force of law = performative speech act in text*
- *Text-mining, predictive analytics, 'codification of law':*
 - *Operations with legal effect?*
 - *Does code generate legal effect?*
 - *Or does it thrive on the force of technology?*

Whiteboxing predictive legal tech?

- used as a means to provide feedback to lawyers, clients, prosecutors, courts
- could involve a sensitivity analysis, modulating facts, legal precepts, claims
- as a domain for experimentation, developing new insights, argumentation patterns, testing alternative approaches
- could detect missing information (facts, legal arguments), helping to improve the outcome of cases
- can be used to improve the acuity of human judgment, **if not used to replace it**
- if used to replace, it should not be confused with law; **then it becomes administration – the difference is crucial, critical and pertinent**
- cp. <http://www.vikparuchuri.com/blog/on-the-automated-scoring-of-essays/>

‘Codification’ under the Rule of Law?

- *Automated decision-making is not law, but public administration*
- *It cannot be ‘legal by design’, but may contribute to legal protection by design*
- *Automated decision-making in public administration must be brought under the Rule of Law (connection with art. 22 GDPR, legal remedies in administrative law):*
 - **Democratic legitimation** (representation, deliberation, participation)
 - **Resistability** (otherwise not law but administration)
 - **Contestable** in a court of law (under the Rule of Law)



COHUBICOL

Hildebrandt 'Opening Pandora's Box' - 21 June 2019 - THE FUTURE OF OFFICIAL PUBLICATIONS