Challenges of the Datafication of Law

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Thesis

Datafication of law as «game changer»
of legal scholarship in the 21st century

William Turner, The Fighting Temeraire (1839)

The National Gallery, London

Structure

I.   Is there such a thing as legal data at all?

II. What is the added-value of legal data analytics?

III. What are typical challenges of legal data analytics?

Part I:
Is there such a thing as legal data at all?

Datafication of Law (1)

– Datafication = production and availability of computer-readable data

– Legal data?

– Law = social construct, not measurable

– But: «Double nature of the law» (Alexy)

– «Law» is also a social practice

– «Legal data» = «Law-related social facts» (Rottleuthner)

– Texts, relationships and decisions

Datafication of Law (2)

Example: Damages as Legal Data

Figure 1: Distribution of the amount awarded in respect of non-pecuniary damage (full sample)
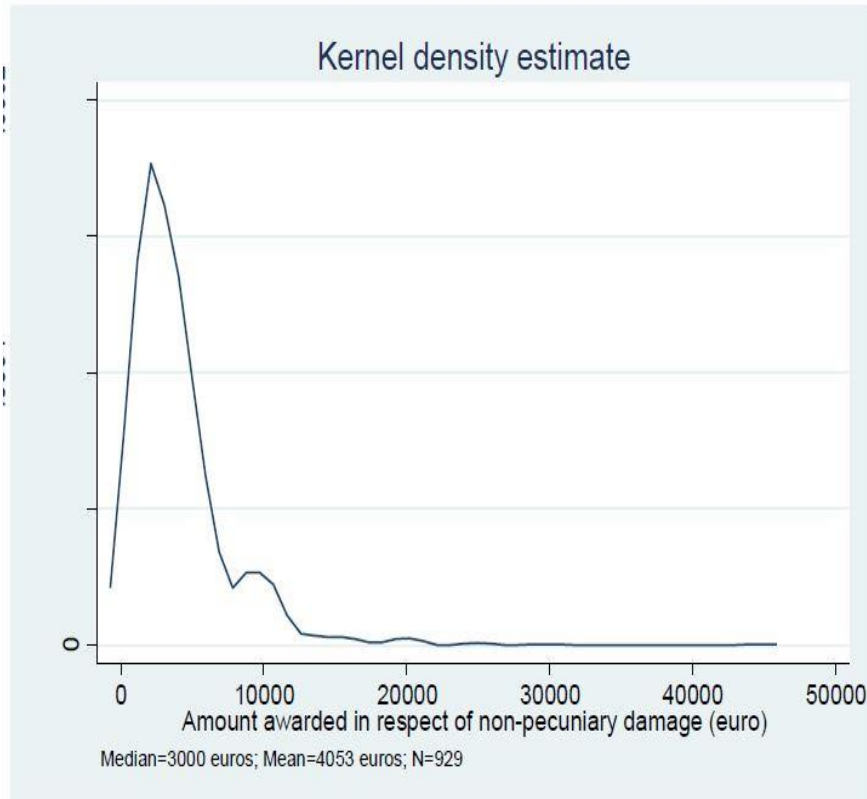
Altwicker-Hamori et al., (2016) 76 (1) ZaöRV 1

Part II:
How to make sense of legal data?

Cluster Analysis

Cluster (d = jaccard, link = average), threshold = 25

Regression Analysis

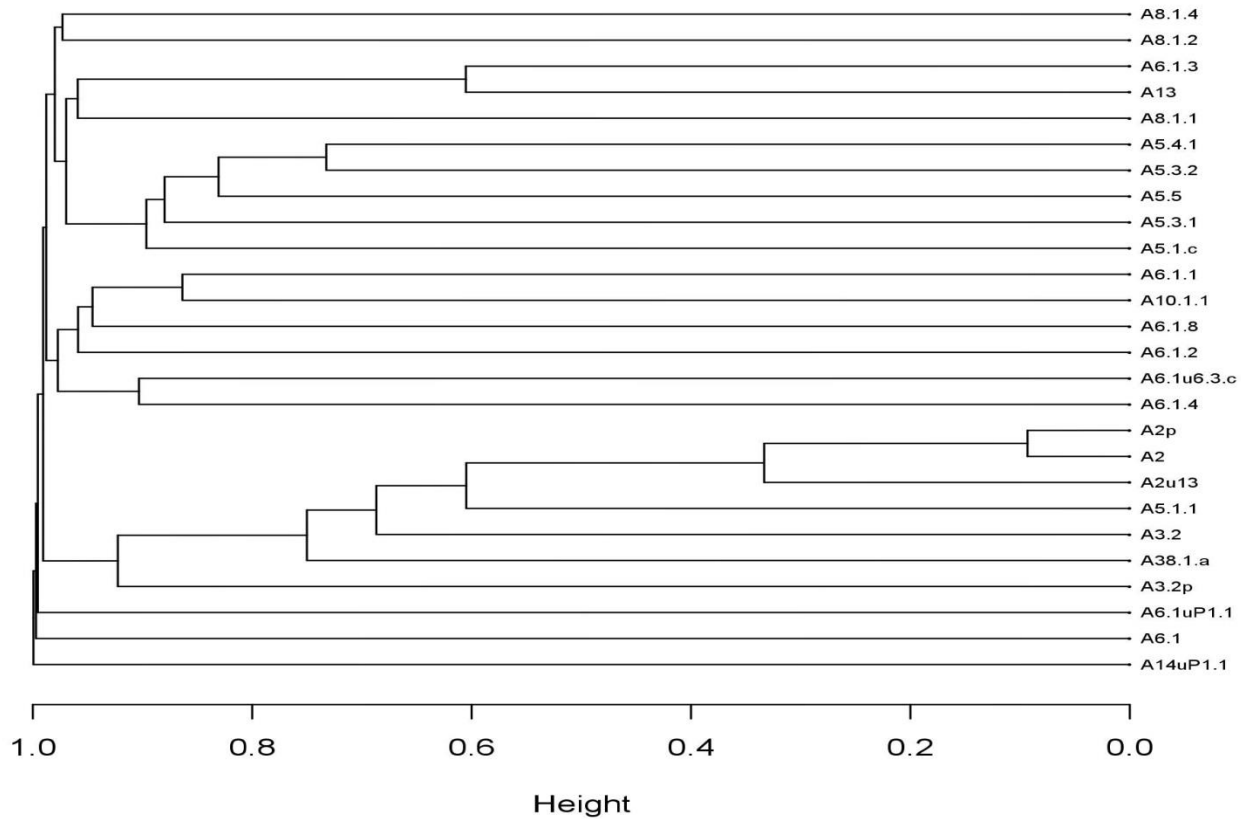|	Model 1	Model 2	Model 3
Protected interest: Life, physical and mental integrity	0.72	0.73	0.71
	(0.17)***	(0.17)***	(0.18)***
Protected interest: Physical liberty	-0.59	-0.58	-0.60
	(0.15)***	(0.13)***	(0.15)***
Protected interest: Private and family life	0.41	0.43	0.37
	(0.20)**	(0.21)**	(0.20)*
Protected interest: Personal and political freedoms	-0.47	-0.44	-0.49
	(0.19)**	(0.18)**	(0.20)**
Protected interest: Property	-0.10	-0.13	-0.11
	(0.16)	(0.16)	(0.16)
State: Turkey	0.39	0.48	0.40
	(0.10)***	(0.12)***	(0.10)***
State: Old member states	0.63	0.62	0.64
	(0.11)***	(0.11)***	(0.11)***
Victim type: Legal person	0.42	0.41	
	(0.21)**	(0.22)*	
Type of opinion: Presence of separate opinion		-0.54	
		(0.23)**	
Sex: Female			-0.06
			(0.06)
Nationality: Non-national of respondent state			0.18
			(0.20)
Constant	7.32	7.48	7.76
	(0.23)***	(0.27)***	(0.07)***
N	929	929	904

*Significant at 10%; **Significant at 5%; ***Significant at 1%. Standard errors, clustered at the case level, in parentheses. Dependent variable: Natural logarithm of non-pecuniary damage. Omitted categories: Procedural rights, New member states, Unanimous opinion, Natural persons, Male, National of respondent state. Models 1 and 2 are estimated on full sample. Model 3 is estimated on the subsample of natural persons.

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Faculty of Law

Model-based Predictions

$$\log(y_i) = \beta_0 + \beta_1 V_{1i} + \beta_2 V_{2i} + \beta_3 V_{3i} + \beta_4 V_{4i} + \beta_5 V_{5i} + \beta_6 S_{1i} + \beta_7 S_{2i} + \beta_8 L_i + \varepsilon_i$$

$$i = 1, \ldots, n$$

Model 1

y_i	=	Amount awarded in respect of non-pecuniary damage
V_1	=	Protected legal interest 1 (life, physical and mental integrity)
V_2	=	Protected legal interest 2 (physical liberty)
V_3	=	Protected legal interest 3 (private and family life)
V_4	=	Protected legal interest 4 (personal and political freedoms)
V_5	=	Protected legal interest 5 (property)
S_1	=	State: Turkey
S_2	=	State: Old member states (accession before 1990)
L	=	Victim type: Legal person

Part III:
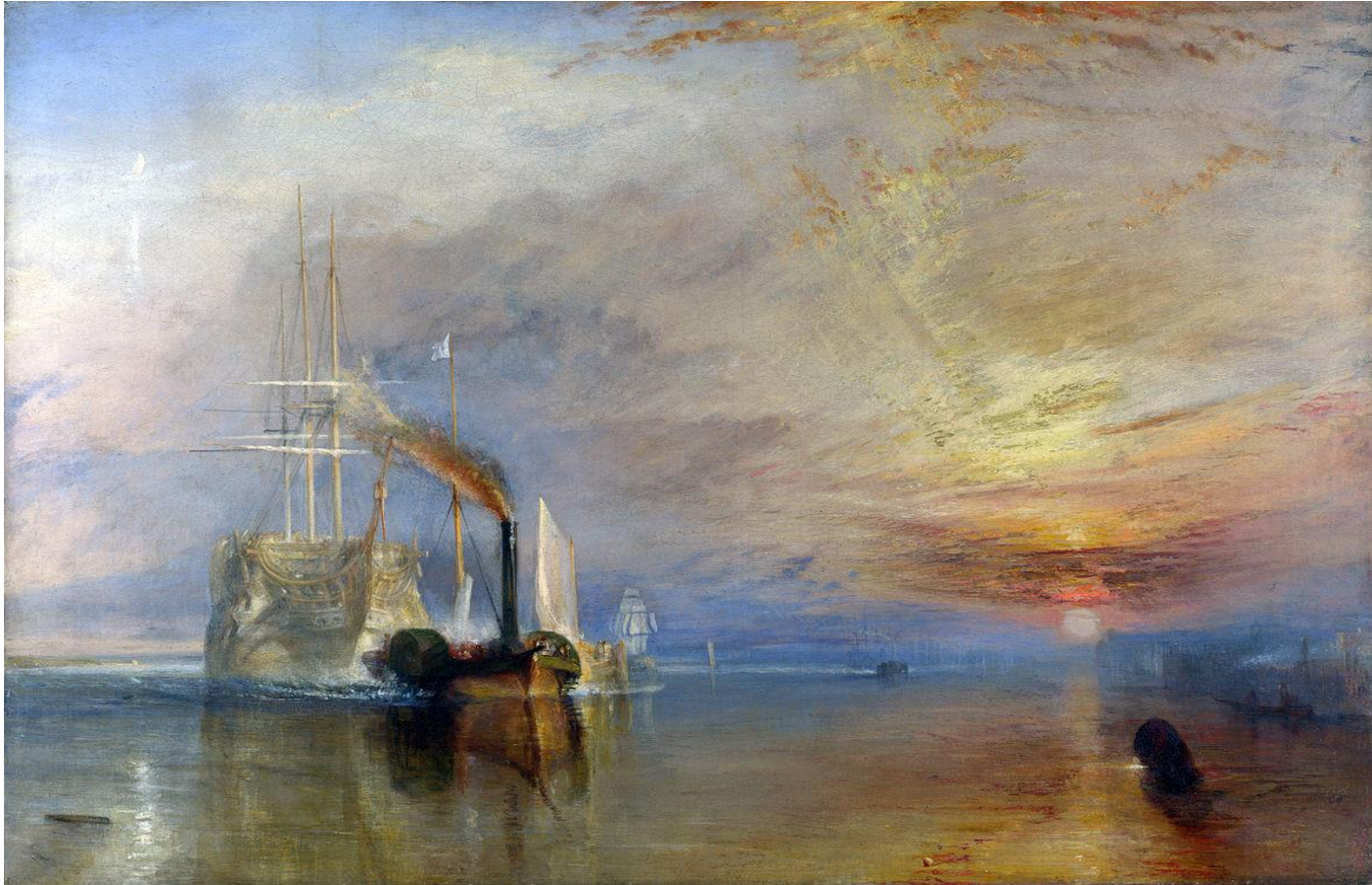# What are typical challenges of legal data analytics?

Challenges

– Data quality: missings, no «data generating consciousness» of courts

– Narrowing the scientific perspective: what about normative dimension of the law?

– Identity: loss of «proprium» of legal scholarship?

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Sources

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