Center for Text Analytic Methods in Legal Studies

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Motivation

- Increasingly, legal texts seen as data:
- Court decisions, statutes, and regulations.
- New sources of legal data are available for research:
- Harvard Caselaw Access Project
- 6 .7 million US cases
- New higher resolution text analytic techniques
- Transformer language models (e.g., BERT)
- Extract case topics, legal areas, timeline events, legal tests, and outcomes
- Identify bias in legal language
- Center will connect:
 - Pitt Law & RAND legal domain experts and
- Pitt NLP/ML/text analytics researchers..

Project Description

- Identify socially relevant empirical legal hypotheses testable via text analytics.
- Adapt and apply text analytics to extended legal data sets to evaluate hypotheses.
- Based on results, publish papers and apply for external funding to sustain Center's research.

Context

- Empirical legal studies have been constrained to manual text analyses.
- Pitt team experienced in developing / applying new text analytics:
- Natural language processing
- Machine learning
- Applied to legal cases and statutes.
- Rand team and Pitt Law faculty experienced in identifying / evaluating socially relevant empirical legal hypotheses



Apply new analytic techniques to new sources of legal text data to evaluate legal hypotheses in ways not previously possible.



Project Deliverables

Steps 6 & 7: Submit papers & funding proposals
Step 5: Develop pedagogical approach
Step 4: Process pipeline; evaluate hypothesis

Step 3: Annotate data for supervised ML Step 2: Strategize NLP/ML approach

Step 1, Spring 2021: Identify candidate legal hypotheses

Potential Impact

- Focuses on important hypotheses.
 - re social issues: racism, gender equality, immigration, public health, crime, or education.
- Engages current literature.
- Empirical legal research field awakening to methodological possibilities of text analytics.
- Pedagogical opportunities.
 - Introduce them to technology and to sociallyrelevant legal issues.
 - Motivate / engage law and prelaw students.
 - Help them learn to read legal decisions more effectively.
- Focal center for research on text analytics and legal studies in Pittsburgh

References

Michael Livermore and Daniel Rockmore (eds.) Law as Data: Computation, Text, & the Future of Legal Analysis. (2018). Santa Fe Institute of Science.

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