

Analysis of companies' non-financial disclosures: Ontology learning by topic modeling

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- Prior studies highlight Linked Data for the analysis of company financial disclosures.
- Non-financial disclosures (e.g. companies' environmental footprints) remain unexplored.
- We employ a Latent Dirichlet Allocation (LDA) topic model. Terms are retrieved from a SPARQL endpoint and seeded as lexical priors.
- An ensemble tree evaluates the quality of disclosures using ratings published by the Carbon Disclosure Project (CDP) and Google Finance.

KEY NON-FINANCIAL INDICATORS*



| statement | finding |
|---|---|
| Global climate is changing and this change is a warming of the past 50 years is primarily due to Global climate is projected to continue to change beyond the next few decades depends and how sensitive the Earth's climate is to those changes. | http://data.globalchange.gov/report/nca3/chapter/climate/finding/global-climate-is-changing |
| U.S. average temperature increase has occurred. Temperatures in the superimposed on a smooth across the c. The length of the fro since the 1980s, with agriculture. Across t Average U.S. precip national average, at the northern United | http://data.globalchange.gov/report/nca3/chapter/climate/finding/global-climate-this-century |

| | effects | mitigation | adaptation | monitoring | risks |
|--|------------|--------------|-------------|-------------|--------------|
| | emissions | processes | systems | monitoring | risks |
| | impacts | responses | adaptation | usage | regulatory |
| | ocean | plans | goal | volume | reporting |
| | climates | requirements | thresholds | percentile | policymakers |
| | ecosystems | reported | technology | stabilizing | trends |
| | society | estimates | operational | target | economic |



CDP data is now available via Google Finance

CDP announced on 14 April 2010 that its carbon disclosure ratings, which assess the level of companies' climate change reporting, are now available on Google Finance. The ratings will be displayed in the "Key stats and ratios" section of Google Finance, alongside key financial data.

Some 3,000 organizations around the world measure and report their greenhouse gas emissions and climate change strategies through CDP