Sources:

ReportParse: A Unified NLP Tool for Extracting Document Structure and Semantics of Corporate Sustainability Reporting

We utilize **ReportParse** for document parsing, some built-in annotators, and extend it with additional custom annotators.

@inproceedings{morio-etal-2024-reportparse,
  title   = {{R}eport{P}arse: A Unified NLP Tool for Extracting Document Structure and Semantics of Corporate Sustainability Reporting},
  author   = {Morio, Gaku and In, Soh Young and Yoon, Jungah and Rowlands, Harri and Manning, Christopher D.},
  booktitle = {Proceedings of the Thirty-Third International Joint Conference on Artificial Intelligence, {IJCAI-24}},
  publisher = {International Joint Conferences on Artificial Intelligence Organization},
  pages   = {to appear},
  year   = {2024},
  note   = {Demos},
}

ClimateBERT: A Pretrained Language Model for Climate-Related Text

We employ **finetuned versions of ClimateBERT**, introduced by Bingler et al., for processing climate-related text.

@inproceedings{wkbl2022climatebert,
    title={{ClimateBERT: A Pretrained Language Model for Climate-Related Text}},
    author={Webersinke, Nicolas and Kraus, Mathias and Bingler, Julia and Leippold, Markus},
    booktitle={Proceedings of AAAI 2022 Fall Symposium: The Role of AI in Responding to Climate Challenges},
    year={2022},
    doi={https://doi.org/10.48550/arXiv.2212.13631},
}

How cheap talk in climate disclosures relates to climate initiatives, corporate emissions, and reputation risk

We use **ClimateBERT fine-tuned models** to detect climate claims, commitment claims, their specificity, and sentiment.

@article{BINGLER2024107191,
title = {How cheap talk in climate disclosures relates to climate initiatives, corporate emissions, and reputation risk},
journal = {Journal of Banking & Finance},

volume = {164},
pages = {107191},
year = {2024},
issn = {0378-4266},
doi = {https://doi.org/10.1016/j.jbankfin.2024.107191},
url = {https://www.sciencedirect.com/science/article/pii/S0378426624001080},
author = {Julia Anna Bingler and Mathias Kraus and Markus Leippold and Nicolas Webersinke},
keywords = {Corporate climate disclosures, Voluntary reporting, Commitments, Greenhouse gas emissions, Negative news coverage, Textual analysis},
abstract = {Navigating the complex landscape of corporate climate disclosures and their real impacts is crucial for managing climate-related financial risks. However, current disclosures oftentimes suffer from imprecision, inaccuracy, and greenwashing. We introduce ClimateBert CTI, a deep learning algorithm, to identify climate-related cheap talk in MSCI World index firms' annual reports. We find that only targeted climate engagement is associated with less cheap talk. Voluntary climate disclosures are associated with more cheap talk. Moreover, cheap talk correlates with increased negative news coverage and higher emissions growth. Hence, cheap talk helps assess climate initiatives' effectiveness and anticipate reputation and transition risk exposure.}
}

Automated Fact-Checking of Climate Change Claims with Large Language Models

Our pipeline bears resemblance with the methodology described in this paper for automated fact-checking of climate change claims

Source: [arXiv:2401.12566]

@misc{leippold2024automatedfactcheckingclimatechange,

title={Automated Fact-Checking of Climate Change Claims with Large Language Models},

author={Markus Leippold and Saeid Ashraf Vaghefi and Dominik Stammbach and Veruska Muccione and Julia Bingler and Jingwei Ni and Chiara Colesanti-Senni and Tobias Wekhof and Tobias Schimanski and Glen Gostlow and Tingyu Yu and Juerg Luterbacher and Christian Huggel},

year={2024},

eprint={2401.12566},

archivePrefix={arXiv},

primaryClass={cs.CL},

url={https://arxiv.org/abs/2401.12566},

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}
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