Unveiling the Future of Clean Energy: A Deep Dive into U.S. Media's Portrayal of Carbon Capture and Storage Initiatives

Yulun Wang (presenter)

Kusuma Lanka

Introduction

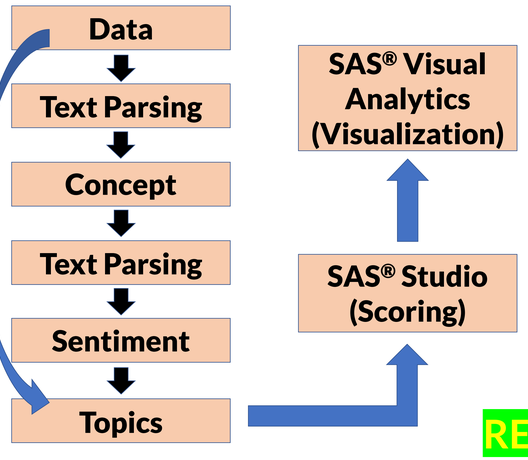
- **Carbon Capture and Storage (CCS)**: to reduce CO_2 emission by capturing and storing CO_2 from industrial sources (e.g., power plants, natural gas processing facilities, ethanol plants) beneath Earth's surface (>2,400 feet deep).
- **Supported by** federal initiatives (e.g., 2021 Bipartisan Infrastructure Law).
- **Concerns**: cost, safety, health, environment.

Objectives & Significance

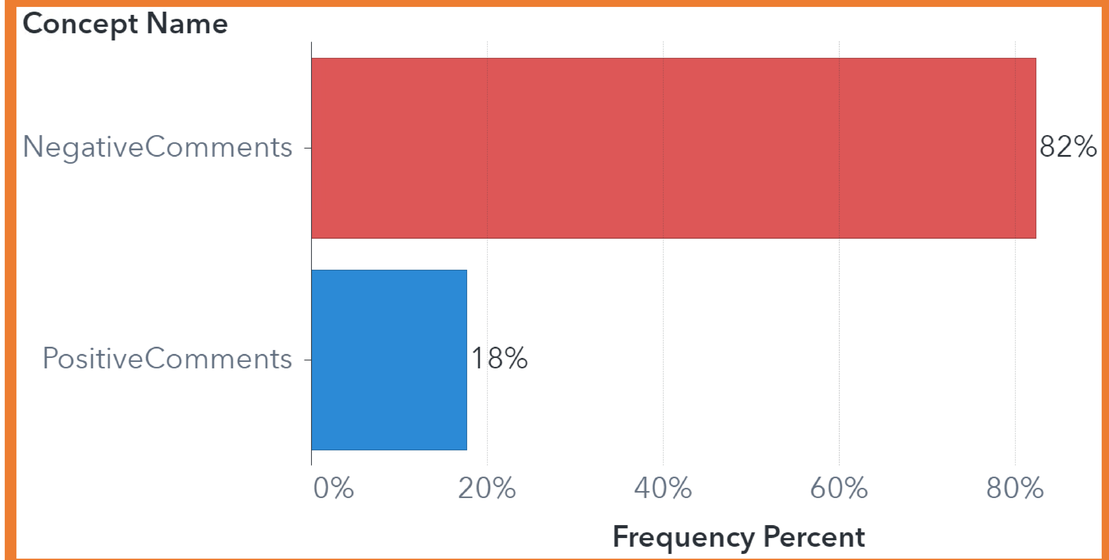
- Understand sentiment and concerns on CCS in news articles in the United States
- Insights for designing messaging strategies and administrative measures (e.g., townhall meetings) to address public's concerns.

Data & Method

- Collected scanned news (newspapers.com)
- Extracted text via OCR in Python
- Visual Text Analytics in SAS® Viya
  - Pipeline for data preprocessing, text matching, sentiment identification, topics discovery, scoring, and visualization



Being dominant in news coverage, negative comments are related to pollution, cost, pipeline leakage, feasibility, and effectiveness.



Relative frequency of negative terms

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REPLACE!

Relative frequency of positive terms

Positive comments

- Cleaner power/energy
- Lower emission
- More jobs

Takeaway & Recommendations

- Negative comments are dominant
- **Positive**: clean energy, emission, jobs
- **Negative**: pollution, cost, safety (e.g., pipeline leakage), feasibility, effectiveness
- **Recommendations**: administrative measure (e.g., information session) to clarify concerns and questions from public

Ongoing Work

- Expand to more states and countries
- Refine workflow in SAS® Viya
  - e.g., additional concepts

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Yulun Wang, Kusuma Lanka, Jona Bujari, Rupom Bhattacherjee, Goutam Chakraborty, Prem Bikkina, Jack Pashin, Ben Wernette