

Topics within Global Coral Bleaching Events

Abundant Data Sources on Coral Bleaching

There is an abundance of data on worldwide coral bleaching events and their consequences to the climate and environment

Prominent sources include

1. Research publications
2. Documentaries
3. Conference proceedings
4. Databases
5. News publications

Surfacing the Biggest Challenges Related to these Events

Understanding these disparate data sources helps surface the biggest challenges in tackling their consequences to our planet

1. Informing latest trends and topics that characterize these events
2. Grouping topics into a broader context that makes sense for climate policy & reform
3. Informing policy makers of actions taken or to be taken to offset climate change

News Publications related to Coral Bleaching

Google Search returns tens of pages of results each time a bleaching event occurs

Many are news articles about the same event

News articles

1. Highlight the occurrence of coral bleaching events
2. Characterize their unique nature
3. Explain them in plain language, making them highly consumable
4. Place them into a geospatial and temporal context
5. Connect their consequences to climate change

Extracting topics reported in news articles is valuable to understand coral bleaching

Natural Language Processing

One approach to drawing insights from news publications is to use topic modeling

Topic Modeling can

1. Consume volumes of text-based data
2. Reveal context surrounding these events
3. Highlight noteworthy characteristics of groups of bleaching events
4. Quickly identify action items

The Guardian

UK-based global news publication that reports on climate change events worldwide

Recent news articles were scraped to characterize latest global coral bleaching events

Web Scraping

1. Use Guardian API to 4,800 identify news articles between 2016 and 2023 matching *coral bleaching* search term
2. ~260 articles related to global coral bleaching events
3. Workflow: scrape text of articles, clean and pass through topic model

Objective: understand what characterizes global bleaching events

Results Slide 1

Results Slide 2

Results Slide 3