**Project Proposal: Who Should Continue Producing Oil in a 1.5°C or 2°C World?**

**Team member: cln2139 Chloe Nemo/ my2877 May Yang/ ql2555 Qianhe Liu**

**Project Idea**

**Who should continue producing oil in a 1.5°C or 2°C world?**

This question lies at the heart of current climate policy debates, but surprisingly, there’s no universal answer — only contrasting perspectives from governments, energy producers, and climate scientists. We believe this uncertainty gives us the opportunity to create a compelling, data-driven narrative through visualization.

This idea is partially inspired by prior work one of our team members did before joining Columbia, but we’re all excited about exploring it from a fresh angle. That said, we're completely open to pivoting or adapting based on the team’s interests.

**Why This Topic?**

As countries move toward decarbonization, the global oil industry faces a pivotal question: **which producers should ramp down first, and which (if any) should continue production to meet residual demand?**

Given the lack of consensus, our goal would not be to prescribe an answer, but to map out the data landscape and highlight the trade-offs involved — across emissions, cost, dependency, and equity.

**Feasibility and Data Availability**

We’ve started reviewing relevant data sources and are confident we can compile a comprehensive dataset by combining:

* **IEA (International Energy Agency)** data on production, costs, and emissions per oil field/country
* The open-access **Nature paper** “Unextractable fossil fuels in a 1.5 °C world” ([link](https://www.nature.com/articles/s41586-021-03821-8)) for modeled extraction pathways
* Potential **text analysis of COP documents** to explore policy narratives and commitments
* Possibility of mapping **oil-related government revenues** or **job dependency** by country or region (data TBD, but worth exploring)

**What We Could Build**

* A **global map** showing which countries are most dependent on oil revenues or employment
* An **interactive visual** comparing extraction costs and carbon intensity per country
* A **timeline** or **Sankey diagram** showing projected oil production under 1.5°C and 2°C scenarios
* **Text visualizations** (e.g., word clouds or heatmaps) from COP pledges to illustrate shifts in tone or commitment
* Ultimately, a **data story** that explores this question from multiple angles — economic, environmental, and political

**Why It’s Unique**

While climate visualizations are common, few tackle this exact question — especially by merging production data with political commitments and social impact. By integrating quantitative and qualitative sources, we aim to create something original, informative, and thought-provoking.