Photon

A data driven market opportunities map

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Understanding the problem

01 Every day, we learn about emerging technologies and developments that have the **potential to be groundbreaking**. But how do we **detect** the early proof-of-concept, non-obvious opportunities with real growth potential?

02 This leads us to the broad topic of **Energy**. It's one of the biggest drivers for global issues like climate change, and when starting new projects and companies, it's important to **make sure the problem is relevant**.

03 The process of determining whether a problem is prossiming enough is not trivial. How can we **gather** and **treat** the vast amount of data revolving around energy to detect the most promising, emerging and non-obvious problems that need to be solved?

Solution: Photon

Photon is an application capable of:

- Extracting and analyzing energy related data from various sources
- Detecting and identifying real, high growth opportunities within the energy market and industry
- Showcasing that information to the user in an easy to use graph-based visual interface

Steps and Goals

Data Extraction

Development of modules that communicate with external APIs and sources in order to extract relevant, energy-related data.

Clustering

Parsing and interpretation of the collected data (possibly done with NLP proximity analysis), in order to build clusters and groups.

ML Based Prediction

ML based screening and prediction of opportunity growth potential.

Visual Interface

Creation of a graph-based visual interface, that will represent a knowledge graph, to have a sound source of insight into the "problem area" of Energy.

State of the art & Related Work

Dandelion API

Desarquivo

REexplorer
MAPPING OUR ENERGY FUTURE

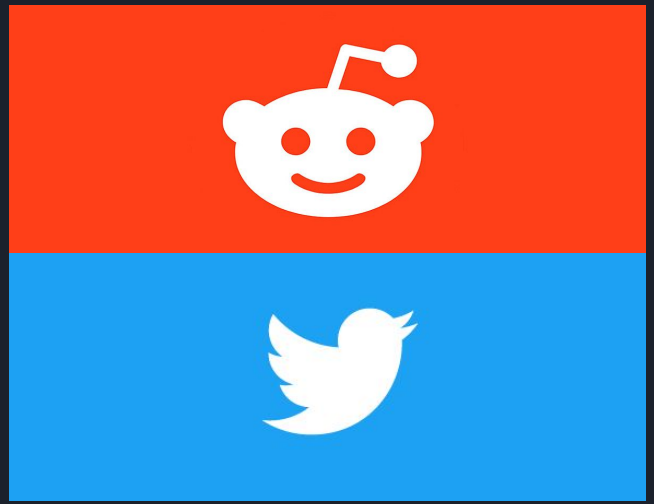
Hydro-Graph

Food, Energy and Water (FEW)

Data Sources

Social Media APIs

- ➔ Reddit API
- ➔ Twitter API



Social Media APIs can tap into and extract **public conversations** as a way to understand what's **trending**, **discover insights** and listen to events.

With these APIs, it's possible to gather different metrics data and search for specific topics using **keywords** to analyze related conversations and get popular searches in the platforms.

These 2 social media platforms are specially relevant given their abundance of cutting edge discourse.

Data Sources

News APIs

- ➔ NewsAPI API
- ➔ Newscatcher API

News APIs will have a great importance in data collection. Both APIs aggregate **news from multiple worldwide sources** and have different features to distinguish them.

Using them, it will be possible to retrieve news by keywords, phrases, countries and publishers.

Data Sources

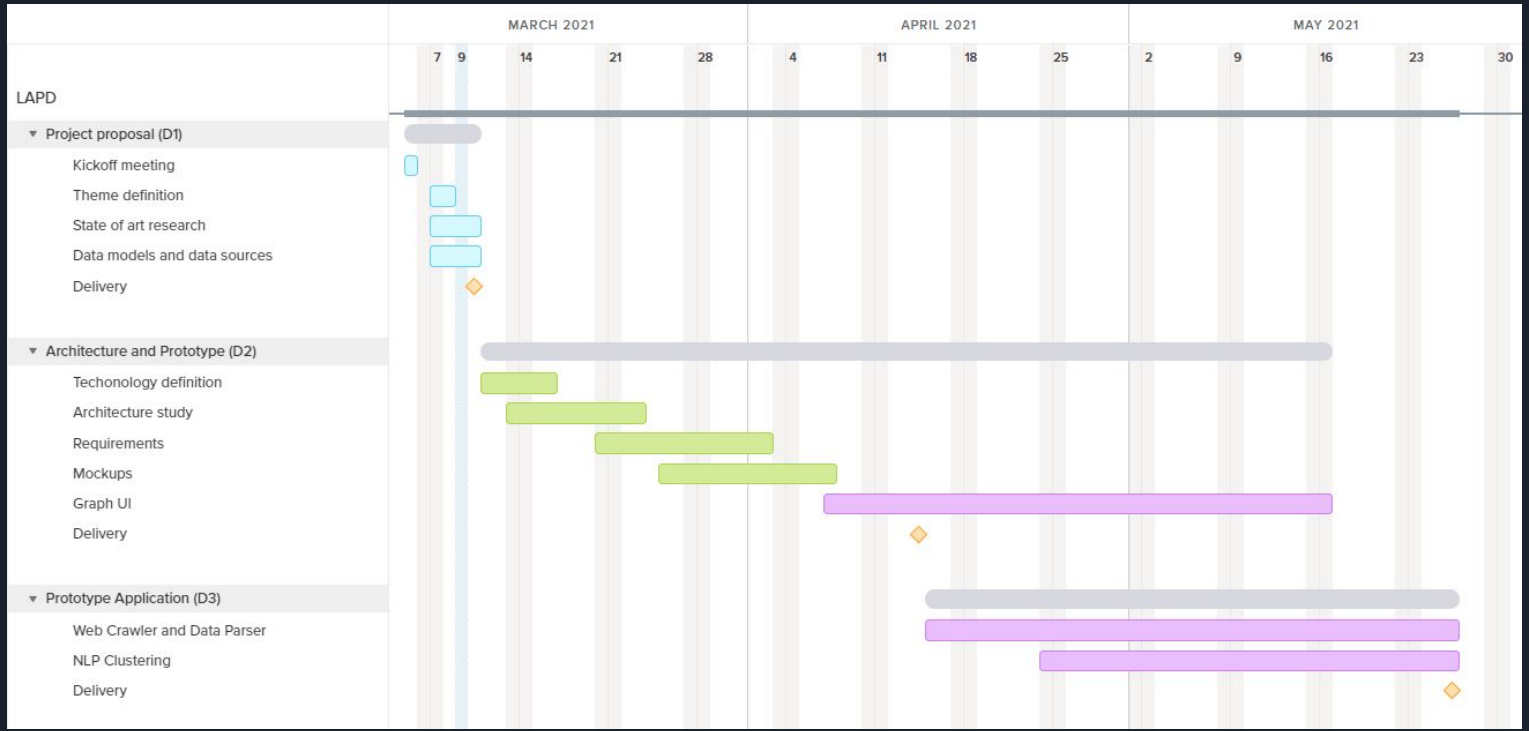
Patent APIs

- ➔ PatSnap API
- ➔ PatentsView API

These APIs aggregate data points and provide information from **patents, licensing, litigation and companies**. They allow discovering people and companies, as well as, visualizing **trends and patterns** across the innovation landscape.

They can prove to be very useful to retrieve information regarding already existing companies and projects in interesting sub areas within the Energy industry.

Project calendar



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Thank you!

Questions?