

GenAI for Data Science



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Agenda

1. Importance of data
2. Level of analytics
3. How to do data science
4. GenAI for data science

1

WHAT IS DATA FOR?

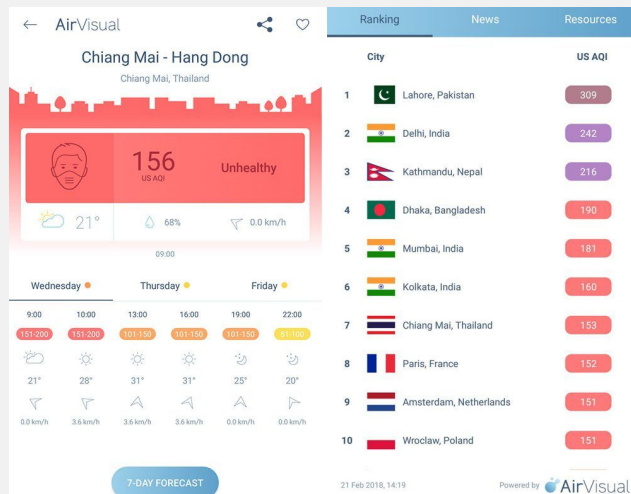


Data for showing

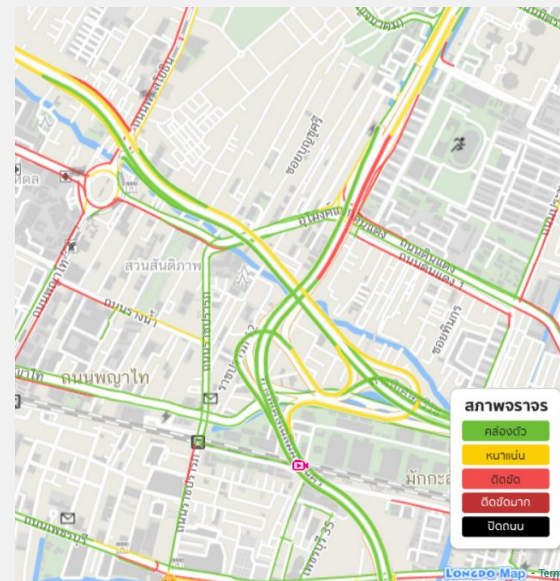
(make people realize, make people aware)



COVID-19



PM 2.5

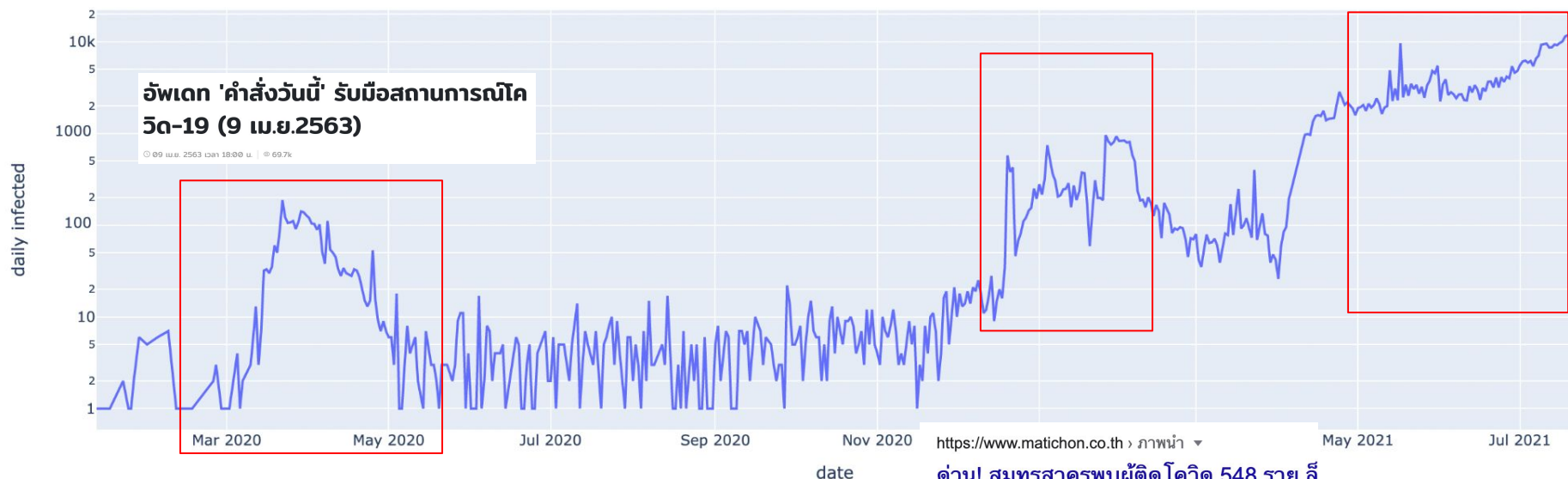


TRAFFIC

Data for explaining

(make people understand)

covid



<https://www.dailynews.co.th> > ข่าว ▾

ทะลุหมื่น! ติดเชื้อเพิ่มอีก10414ราย

29 ก.ย. 2564 — สถานการณ์แพร่ระบาดของโรคระบาดของโรคติดเชื้อไวรัสโคโรนา 2019 (ศบค.)

<https://www.matichon.co.th> > ภาพข่าว ▾

ด่วน! สมุทรสาครพบผู้ติดเชื้อโควิด 548 ราย

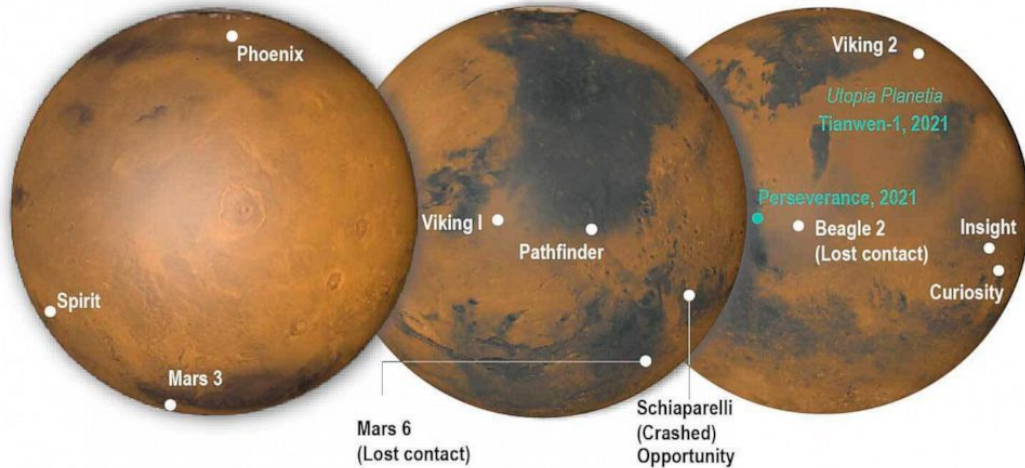
19 ธ.ค. 2563 — จนกระทั่งถึงวันที่ 17 ธันวาคม 2563 ที่ผ่านมามีคนพบที่เป็นการแพร่ระบาดจำนวนมาก ซึ่งภายหลังการดำเนิน

Data for exploring

(make people discover)

Spacecraft missions on the surface of Mars

A computer model of Mars with color and scale enhanced for clarity. Some locations are approximations. Mars 2 and Mars Polar are not shown. Both crash landed.



Source: NASA

AP



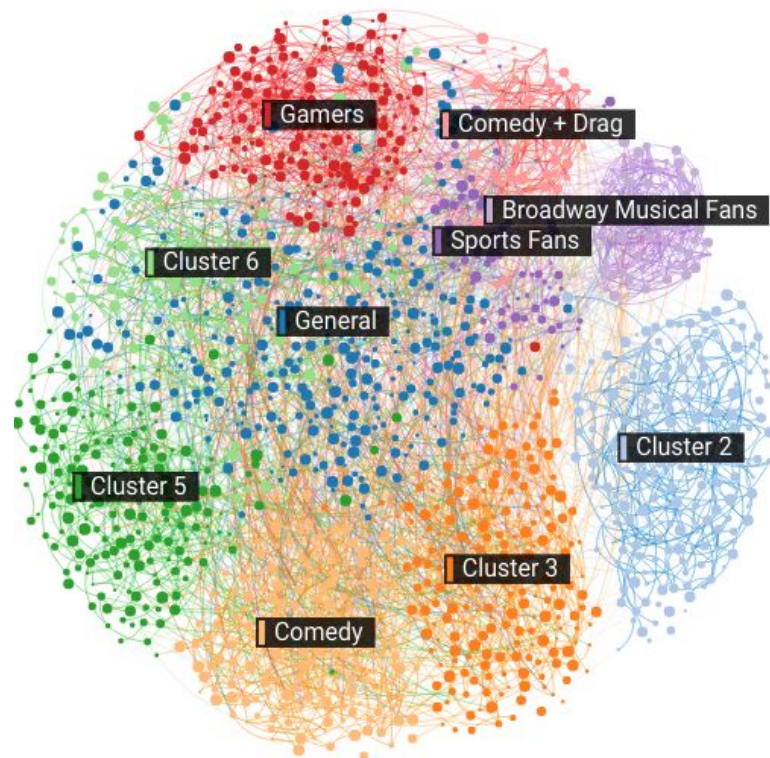
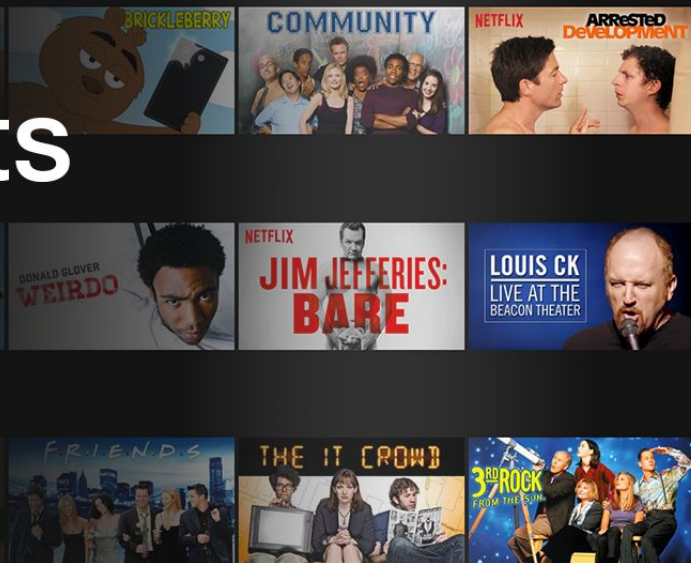
Data for segmenting

(make people arrange)

interests matter most.

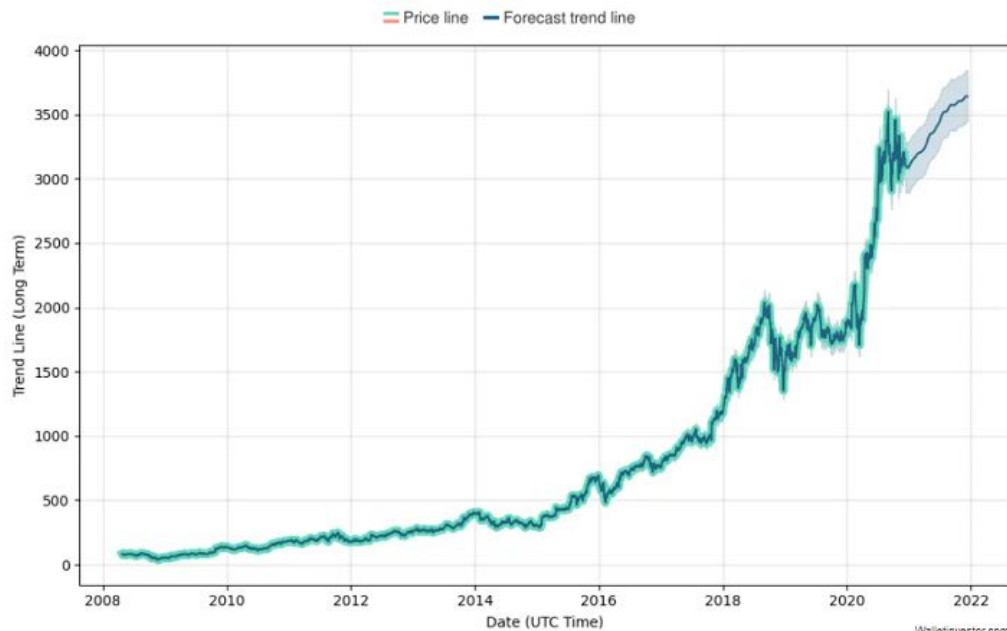
featuring

Affinio



Data for predicting

(make people decide)



THAILAND WEATHER

BANGKOK

Scattered thundershowers and isolated heavy rain.
min. 25°C max. 33°C

Rise: 6:06 am
Set: 6:15 pm

Rise: 09:11 pm
Set: 09:30 am

FORECAST LEGEND

- Sunny
- Partly cloudy
- Thundershowers
- Rain
- Cloudy
- Windy
- Waves
- Cold

WEATHER TODAY

Conclude Part 1

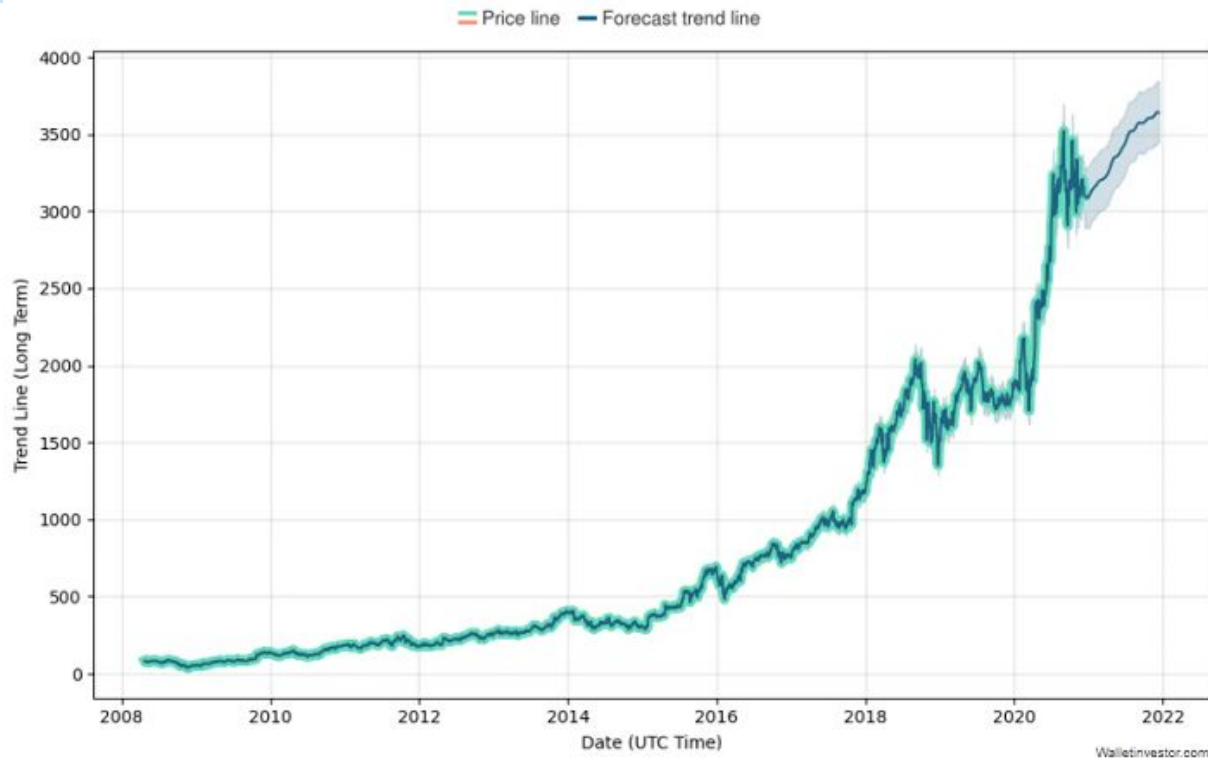
- Data for showing
- Data for explaining
- Data for segmenting
- Data for exploring
- Data for predicting

2

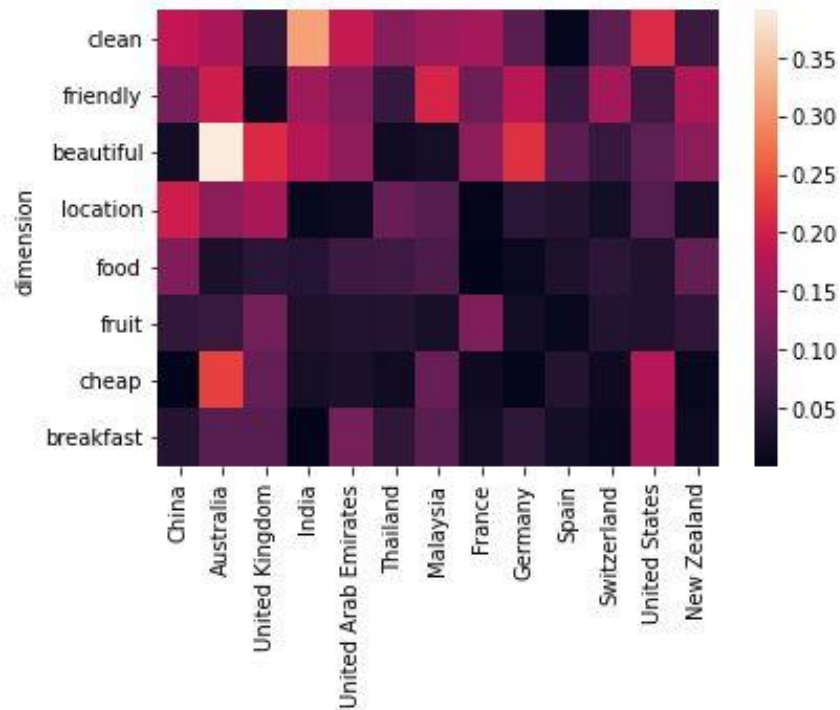
Level of Analytics



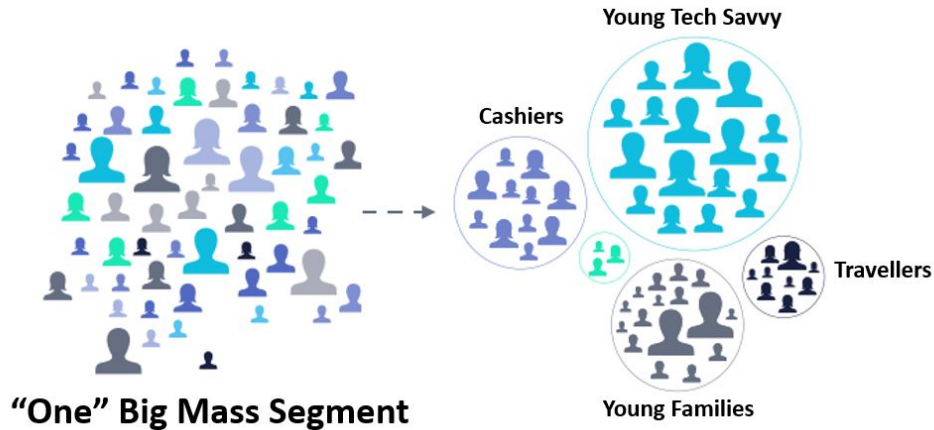
One dimension



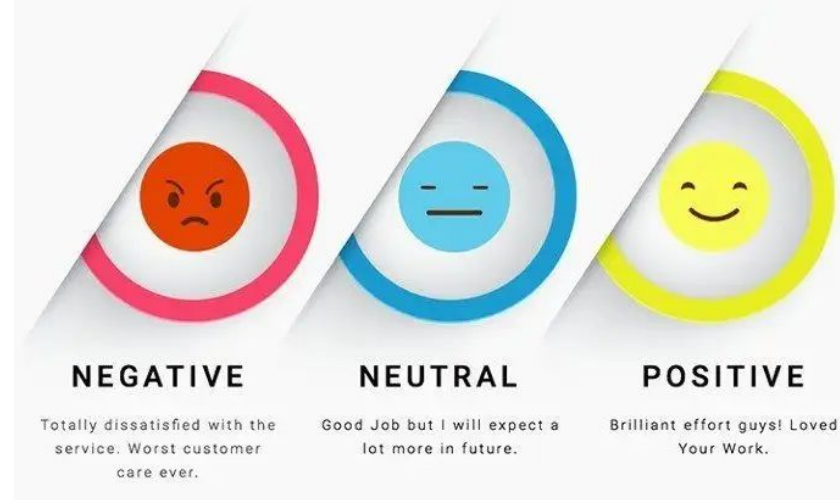
Two dimensions



Higher dimensions



SENTIMENT ANALYSIS



3

How to do Data Science



Steps to do Data Science



Define goal



Collection



Cleaning



Analytics



Prediction

Define goal



Clear objective that brings value to organization



Collecting data

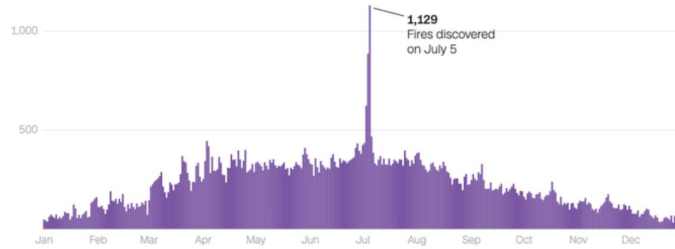
- User interactions
- Loyalty program
- Web scrape
- AI extraction i.e. OCR
CV ASR
- IOT sensors



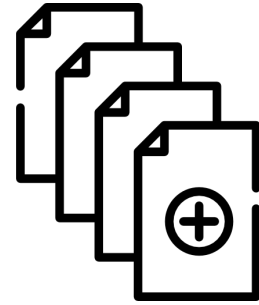
Cleaning data



Missing value

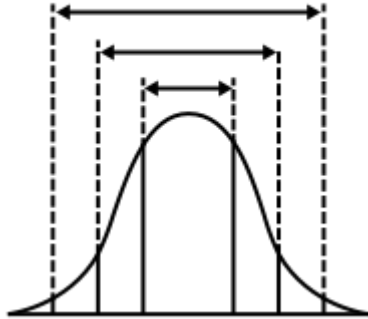


Outlier



Duplications

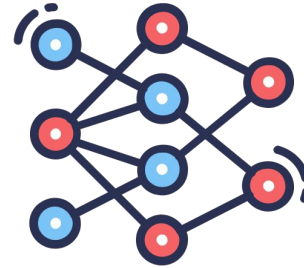
Analytics



Statistics

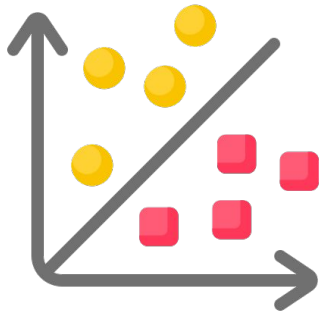


Visualization

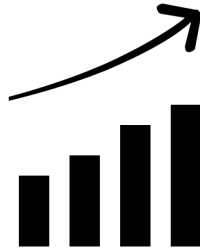


Feature Extraction

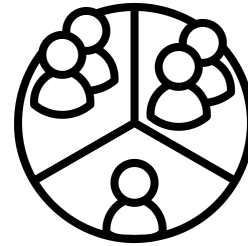
Machine learning



Classification



Forecasting



Segmentation



Recommendation

4

GenAI for data science



Steps to do Data Science



Understand our customers to provide better quality of service



Create an online survey



Use GenAI to clean the data



Use GenAI to extract statistics and insights



Use GenAI to do predictions

Finding your soulmate



Please scan



Slide

