



Down to Earth Black Belt Data Scientist

Disruptive – Big Data – Data Scientist

DSI Meetup 6.0

20 May 2017

Satrio Prabandaru

Telah 17 tahun berprofesi sebagai Business *Data Scientist*.

Berlatar belakang pendidikan dalam bidang *tehnik Informatika* dan *research master for business and commerce*.

Mendalami *information technology* dalam bidang *collective intelligence* (*osint, humint , datint*), *business intelligence*, *data mining*, *text mining*, *advance visual analysis* ,*dynamic network analysis*, *prescriptive analysis* dan *big data analytics*.



Mendalami *business advisory* dalam bidang *performance management*, *balance scorecard*, *organization risk*, *advance segmentation*, *behavioral profiling* , *ethnography*, *value chain* dan *financial research*.

Telah memberikan layanan konsultansi kepada lebih dari 50 Organisasi lintas industri khususnya di negara-negara ASEAN meliputi *banking*, *financial services*, *telco*, *oil & gas*, *mining*, *manufacturing*, *retail consumer goods*, *pharmaceutical*, *distribution*, *airlines*, *government* , *public sector*, *military* dan *marketplace*.

Data Scientist: The Sexiest Job of the 21st Century

Meet the people who can coax treasure out of messy, unstructured data. By Thomas H. Davenport and D.J. Patil

By Harvard Business Review Staff

Is data scientist sexiest job of the century?

America's top business school has declared that the sexiest job of the century is a data scientist. The Harvard Business School's annual ranking of the best jobs in business has been conducted since 1924. This year, the title of "Sexiest Job" went to the data scientist. The school's website says: "Data scientists are the new rock stars of business. They're the ones who can make sense of all the numbers and figures that are out there, and they're the ones who can turn that data into useful information that can help companies make better decisions." The school's website also features a video of a data scientist at work.

Data Scientist: The Sexiest Job of the 21st Century

By Thomas H. Davenport and D.J. Patil

Meet the people who can coax treasure out of messy, unstructured data. By Thomas H. Davenport and D.J. Patil

W^hen Jonathan Goldman arrived for work in June 2006 at LinkedIn, the business networking site, he planned to take a short nap. The company had just 100 employees, and the number was growing rapidly by adding new people every day. He had no idea where he would end up. And he sure wasn't expecting to connect with the people who were already on the site. At the time, there were fewer than 100 members. As an LinkedIn employee, it was like being at a conference reception and realizing you don't know anyone. So he just stood in the corner, sipping his coffee, and you probably know what happened.

MODERN DATA SCIENTIST

The Data Scientist profession is one of the most interesting and dynamic in the world today. It requires a unique blend of technical skills, domain knowledge, and analytical thinking to succeed. In this article, we will explore the key characteristics of a modern data scientist, their responsibilities, and the skills required to succeed in this field.

WHAT IS A DATA SCIENTIST?

A data scientist is a professional who uses statistical and computational methods to extract insights from large amounts of data. They typically work in a variety of industries, including finance, healthcare, retail, and technology. Data scientists often work closely with other professionals, such as data engineers, data analysts, and machine learning specialists, to develop data-driven solutions.

KEY RESPONSIBILITIES OF A DATA SCIENTIST

Some of the key responsibilities of a data scientist include:

- Collecting and cleaning data from various sources.
- Developing statistical models to analyze data.
- Creating visualizations to communicate findings.
- Developing machine learning algorithms to predict future trends.
- Collaborating with stakeholders to define requirements and interpret results.

SKILLS REQUIRED FOR A DATA SCIENTIST

To succeed as a data scientist, you will need to have a strong background in:

- Statistics and probability theory.
- Machine learning and data mining.
- Programming languages, such as Python or R.
- Database management systems, such as MySQL or PostgreSQL.
- Data visualization tools, such as Tableau or Power BI.
- Domain knowledge in a specific industry.

Hal Varian, the chief economist at Google, is known to have said, "*The sexy job in the next 10 years will be statisticians*".

The 2012 Harvard Business Review article by Thomas Davenport and DJ Patil proclaimed ***Data Scientist: The Sexiest Job of the 21st Century***

Jonathan Goldman LinkedIn:
The shortage of data scientists is becoming a serious constraint in some sectors.

The Big Question!

edureka!

Is Data Scientist really the sexiest job of 21st century?

Answer - Yes, it is really the sexiest job of 21st century.

- They are the most desirable job in market.
- They are the among the most paid job.
- They are difficult and expensive to hire and, given the very competitive market for their services, difficult to retain.
- There simply aren't a lot of people with their combination of scientific background and computational and analytical skills.

MODERN DATA SCIENTIST

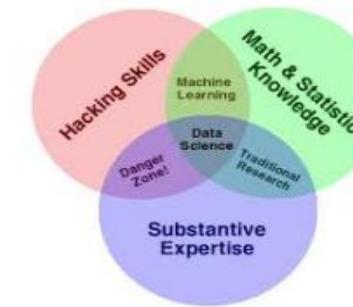
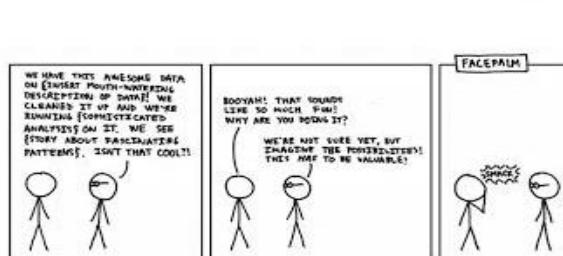
Business intelligence professionals are the most in demand, followed by data analysts and data engineers. Data scientists are the most sought after, but also the most difficult to find.

JOANNA KNOWLEDGE SKILL SHEET

- DATA ANALYSTS
- DATA ENGINEERS
- DATA SCIENTISTS
- DATA MINERS
- DATA PREDICTORS
- DATA PROCESSORS
- DATA SCALERS
- DATA SPECIALISTS
- DATA VISUALIZERS
- DATA WORKERS

COMMUNICATION & VISUALIZATION

Meet the people who can coax treasure out of messy, unstructured data. By Thomas H. Davenport and D.J. Patil



Data Scientist:
The Sexiest Job of the 21st Century



DATA SCIENTIST

The Sexiest Job of the 21st Century

15 MARCH 2014 DATES: 10 AM

Meet the people who can coax treasure out of messy, unstructured data. By Thomas H. Davenport and D.J. Patil

FICO 15,000%

Increase between 2011 & 2012

Job POSTINGS Data Scientist

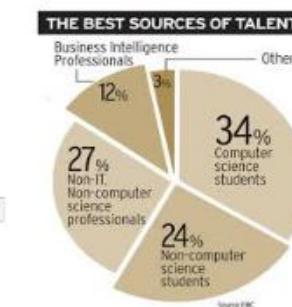
OPEN Job market status

140,000 - 190,000 Data Scientist Positions

NEED To retain or hire

1.5 million Data Literate Managers

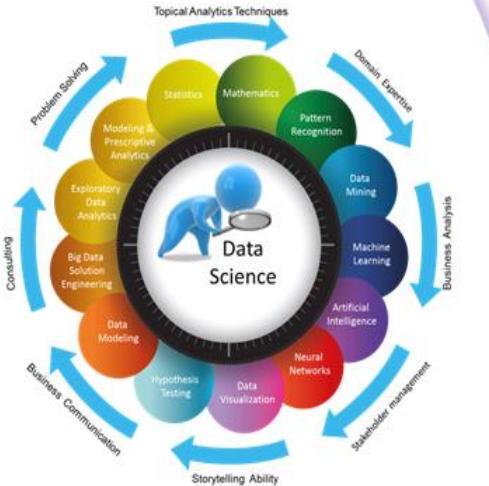
source: <https://www.domo.com/blog/2013/10/the-world-needs-data-literate/>



Pokok Bahasan



1 Disruptive Idea



2 Big Data Fundamental Idea

3 Cook Data Like a Chef Master

4 Data Scientist Fundamental Skills

5 Applied Data Science



Disruptive Idea

Disruptive Idea



1



2



Thinking Out of The Box – Creativity – Skill – Legal

Make Straw Shrimp - Youtube



Japanese Straw Shrimp

Minako TOHGIN

8 years ago • 130,240 views

ストローアート（ストロー細工）では折り紙の鶴に当たるものです。
[wikiHow Reference] How to make a Shrimp out of a Plastic Straw.



Shrimp made using a straw

Imaginative Guy

2 years ago • 1,386,766 views

Homemade Fishing lure * Homemade Squid fishing Egi * Shrimp Fly Tying
(?) 빨대새우로 갑오징어낚시.



Making Straw Shrimp

delicious fishes

1 year ago • 27,598 views

In this video I show you how to make a straw shrimp, that is a shrimp made from a common drinking straw. Hooks can be added if ...



Straw Shrimp Tutorial

mie joran

8 months ago • 28 views



Рыболовная приманка креветка из коктейльной трубочки

Grey Coyote

1 year ago • 21,497 views

Рыболовная приманка креветка из коктейльной трубочки. Подробную технологию изготовления можно посмотреть...



Shrimp fly. Straw shrimp fly? tying.

makoto saasaki

1 year ago • 9,392 views

誰で見づらいですがお許しを。



How to make Shrimp from Straw - make fish bait

Drinking straw

1 month ago • 90 views

How to make Shrimp from Straw - make fish bait this is a tutorial on how to make a shrimp from a drinking straw and a pair of ...

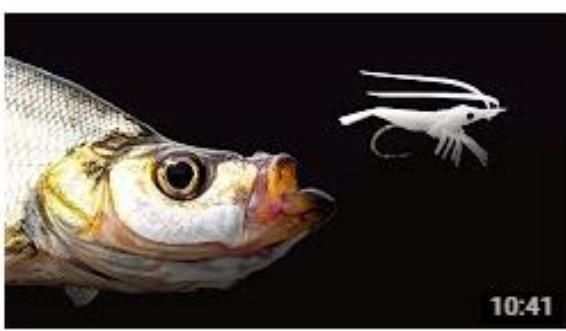


How To Make Straw Shrimp - Craft Tutorial

ABC TV

1 year ago • 14,782 views

You've heard of balloon animals? How about straw animals? Turn an ordinary drinking straw into a shrimp in minutes with my ...



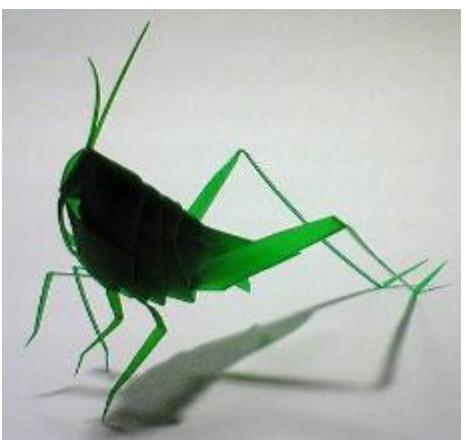
Skygazer fish fishing with straw shrimp --- (빨대새우로 강준치낚시)

Imaginative Guy

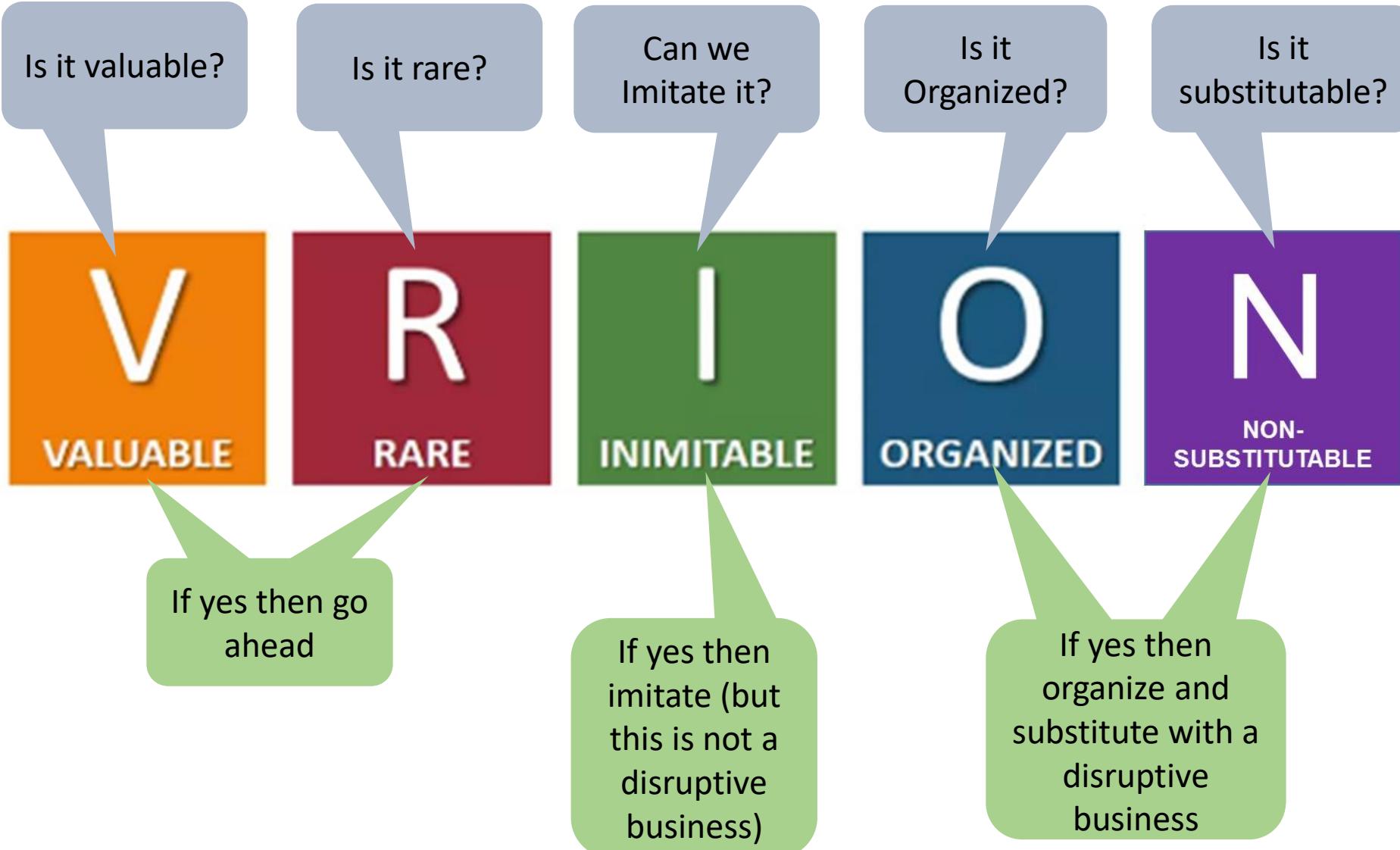
1 year ago • 255,242 views

Shrimp made with yogurt straw.

Divergent Ideas



VRION Framework for Disruptive Business



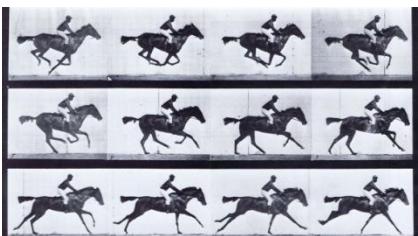


Big Data Fundamental Idea

Kisah Video, Gambar & Spreadsheet



Video



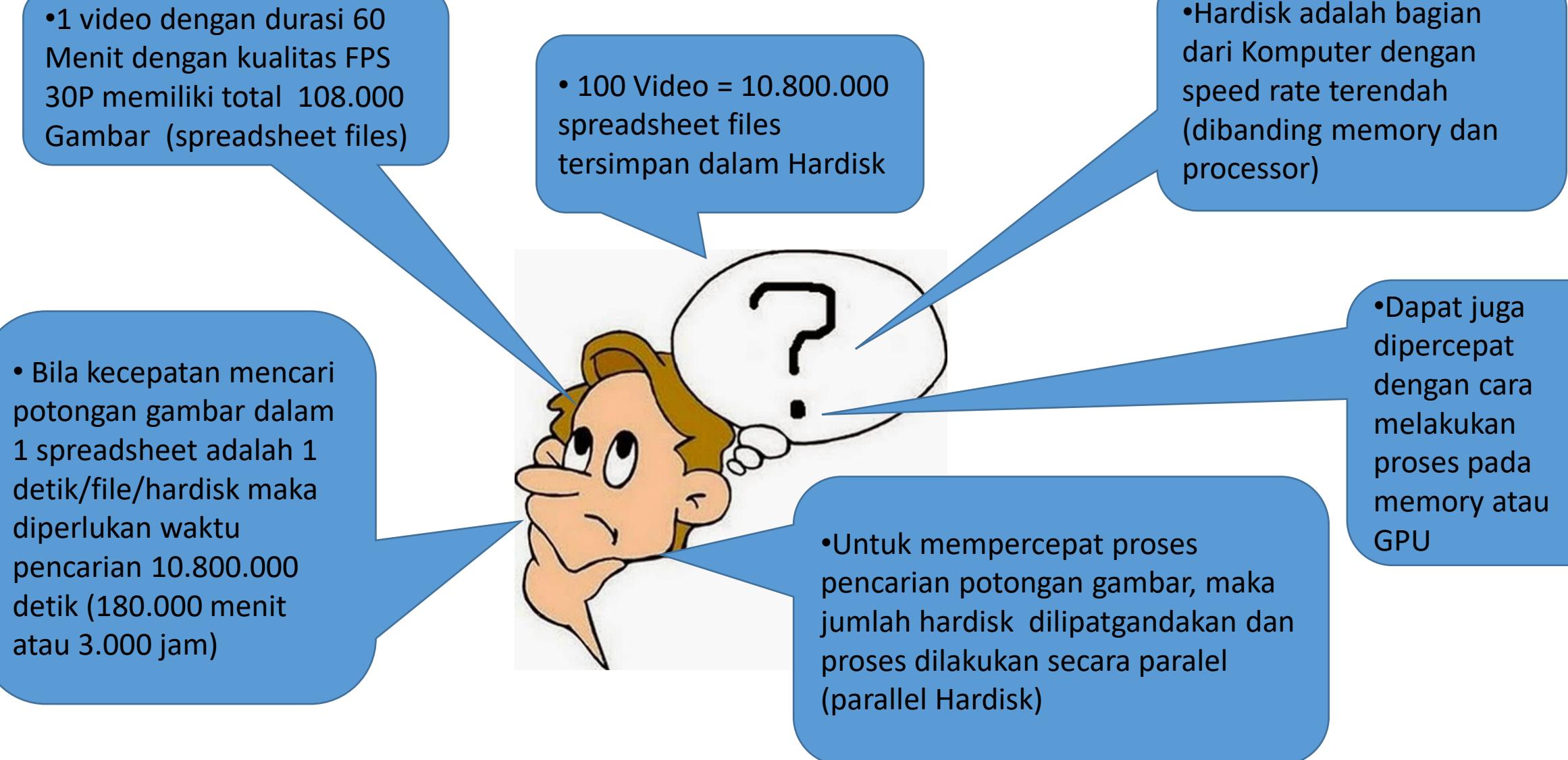
Frame per-Second



Gambar/Picture

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Ilustrasi

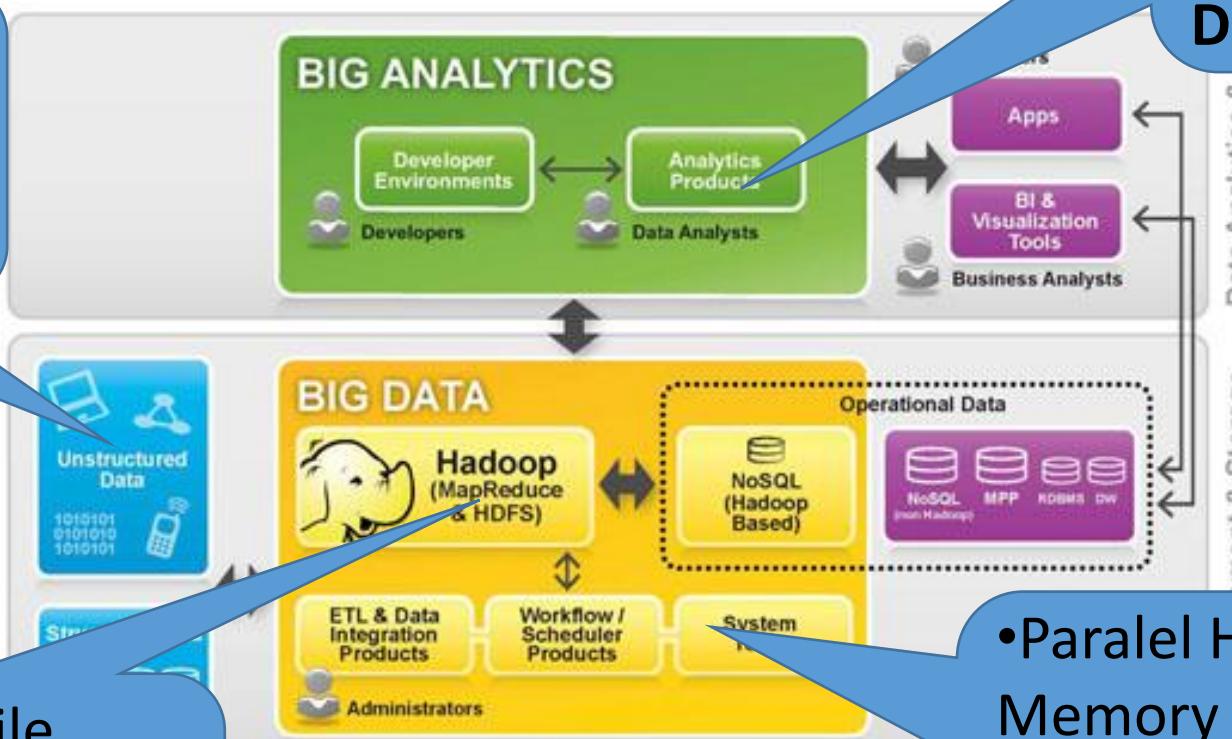


Analogi



• Video dan gambar mewakili analogi Big Data

• Penyebaran file spreadsheet mewakili analogi Distributed Files



• Pencarian Potongan gambar (search data dalam spreadsheet) mewakili analogi Big Data Analytics

• Parallel Hardisk, Memory dan GPU mewakili analogi Big Data Management & Storage

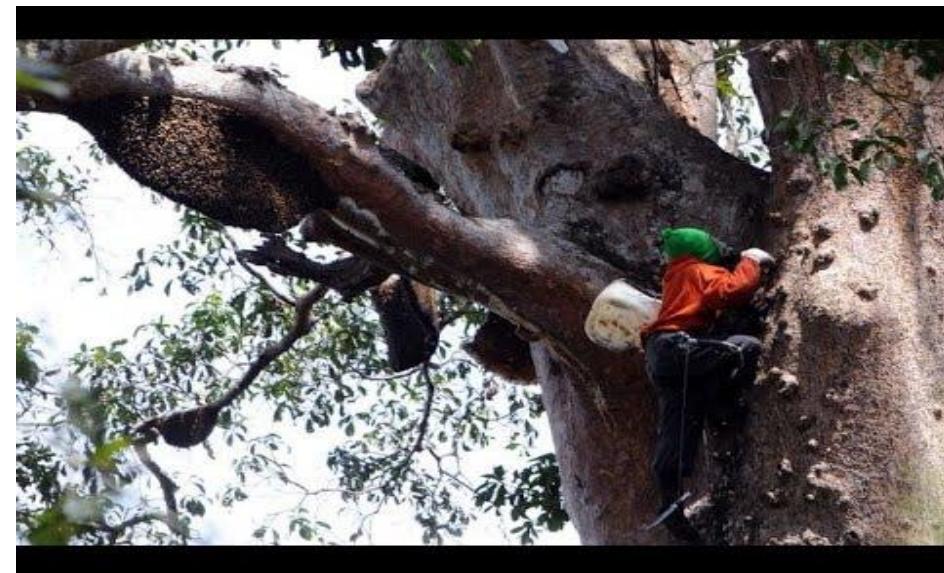


Cook Data Like a Chef Master

Source



Technical



Storage



Business



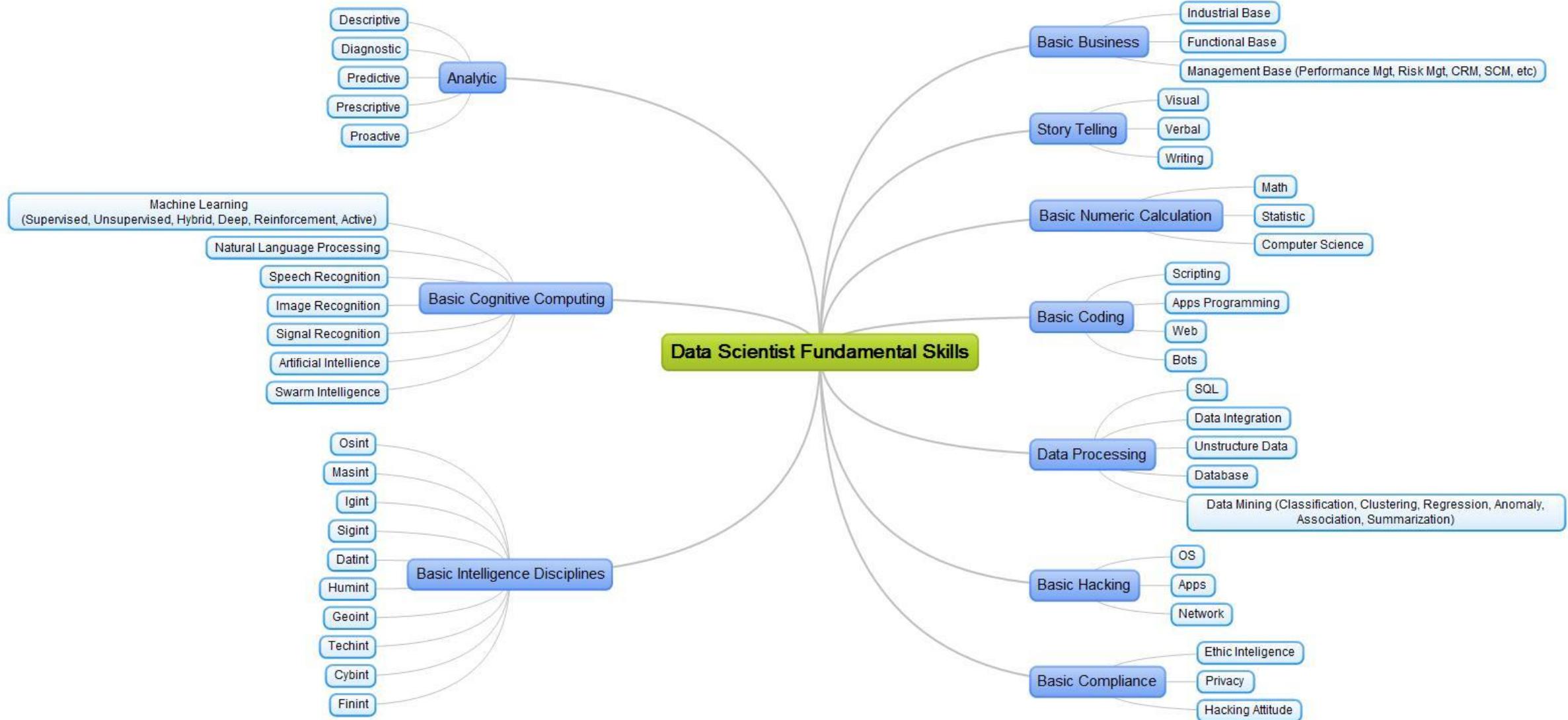
Result for End Users





Data Scientist Fundamental Skills

Data Scientist – Fundamental Skill



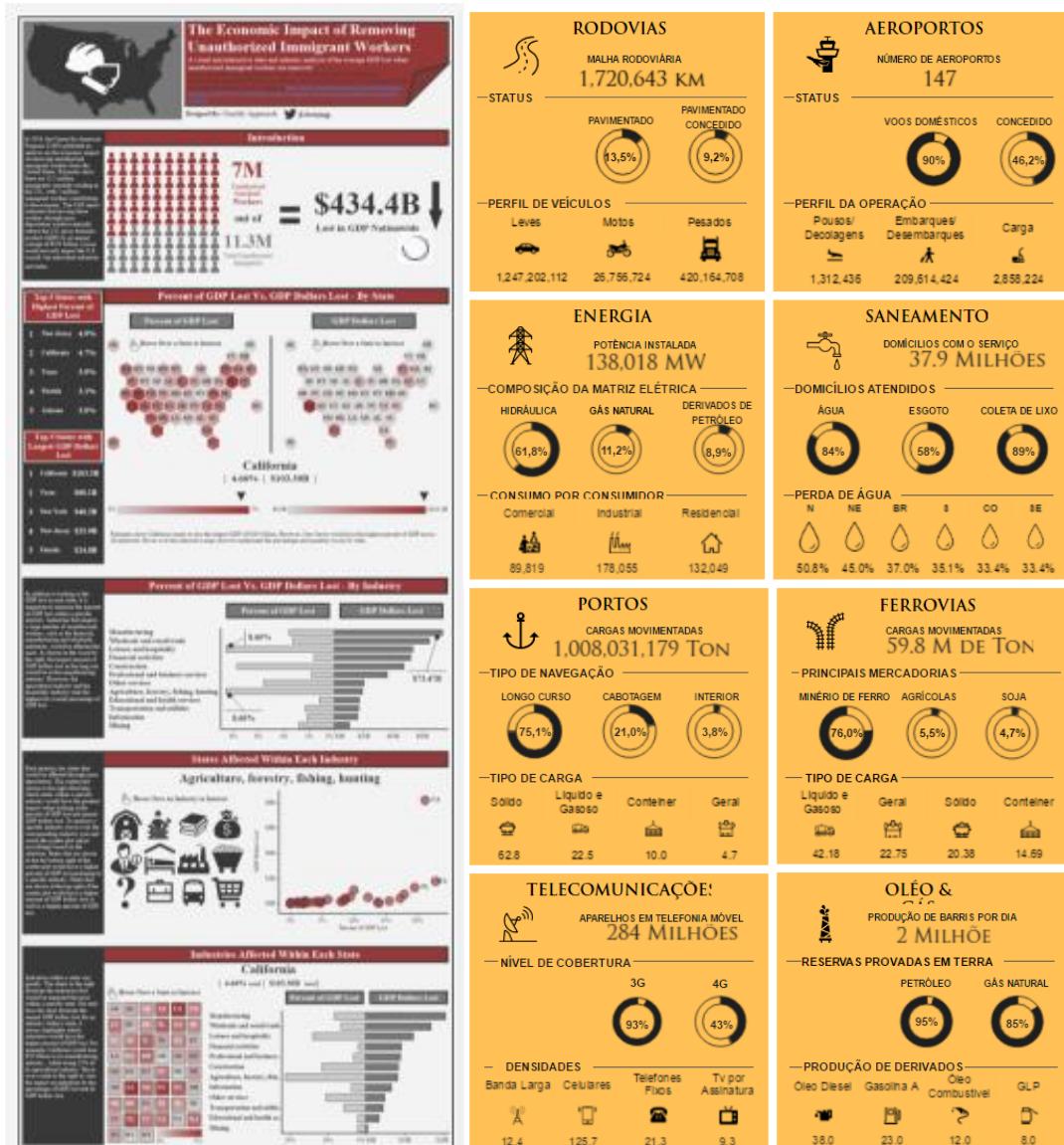
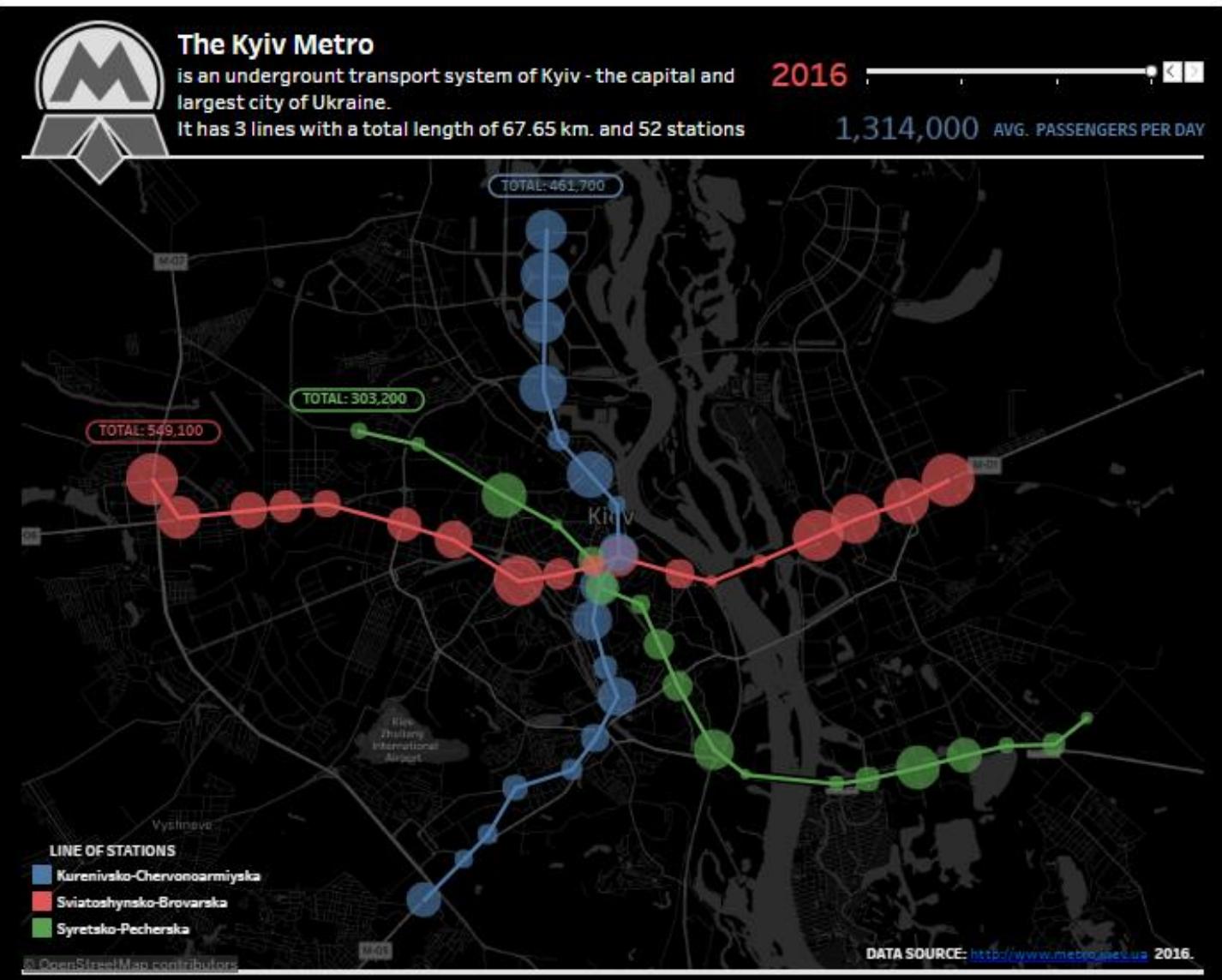


Applied Data Science

Visual Query & Data Discovery



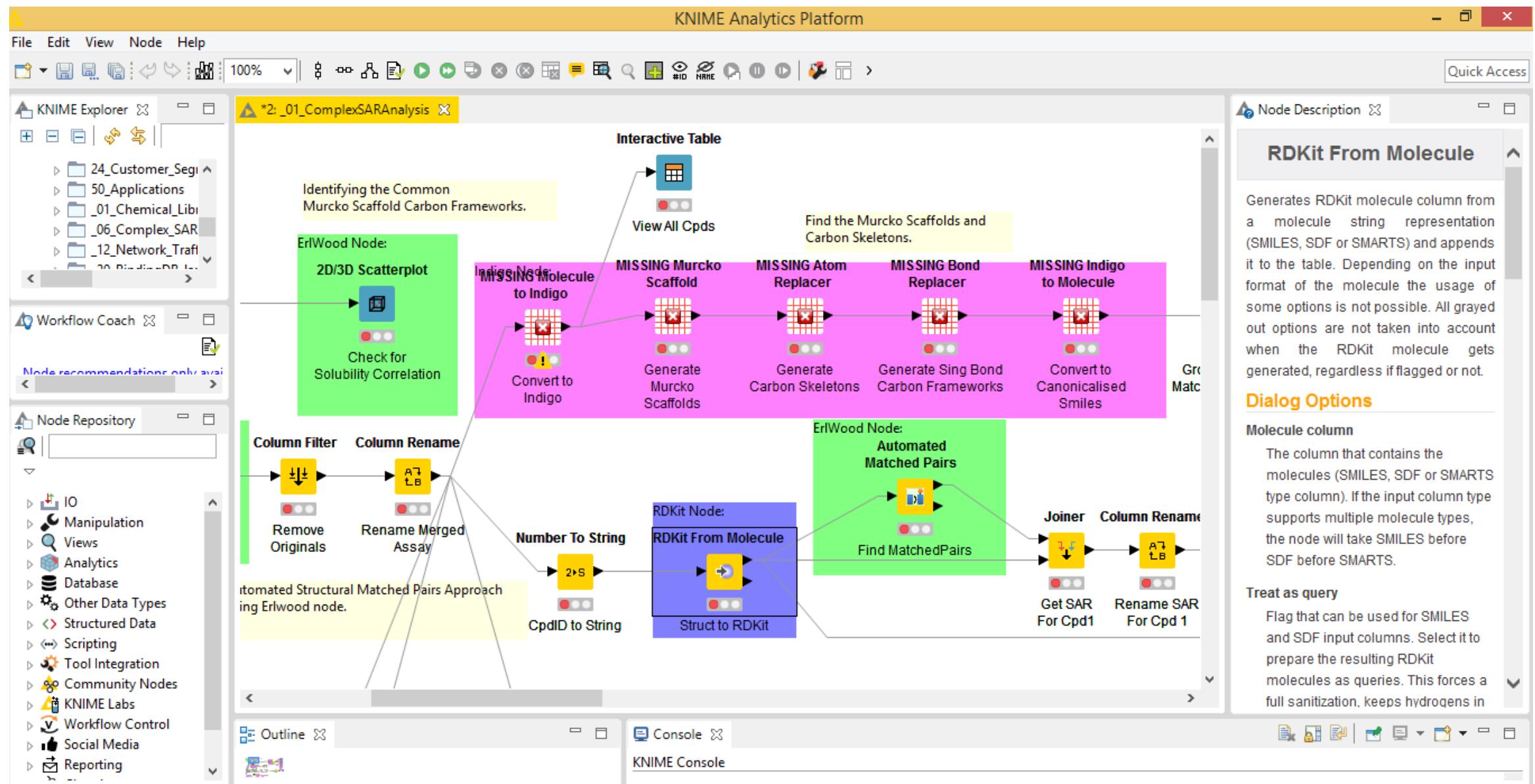
Visual Analytics



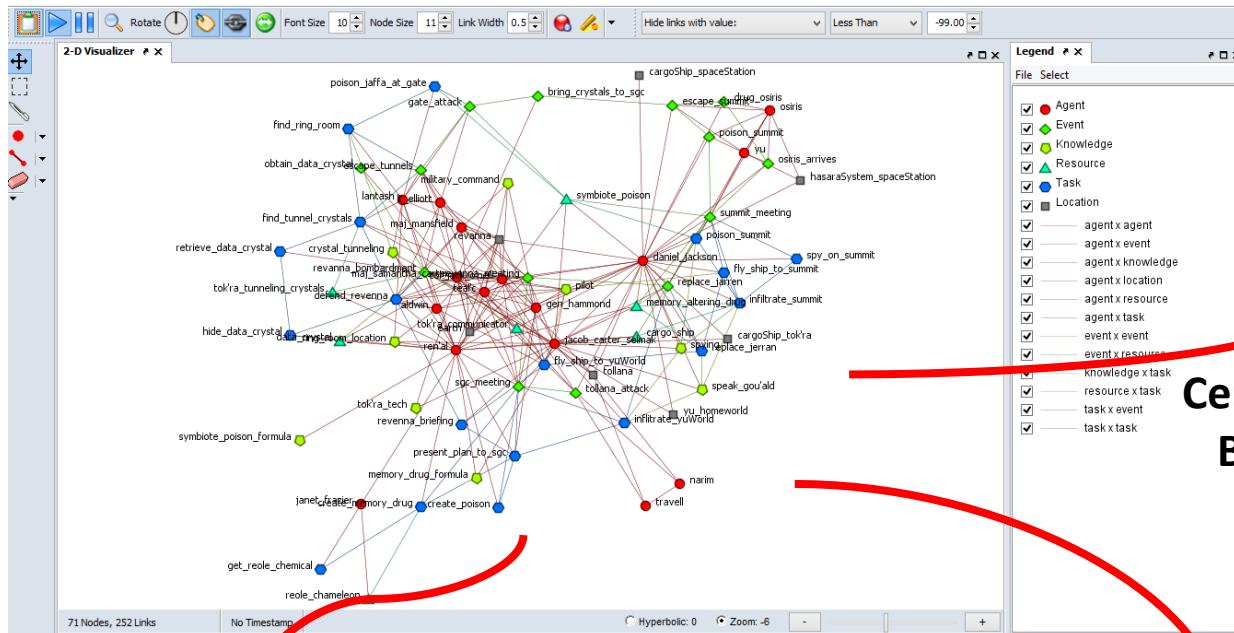
Machine Learning



KNIME Analytics Platform

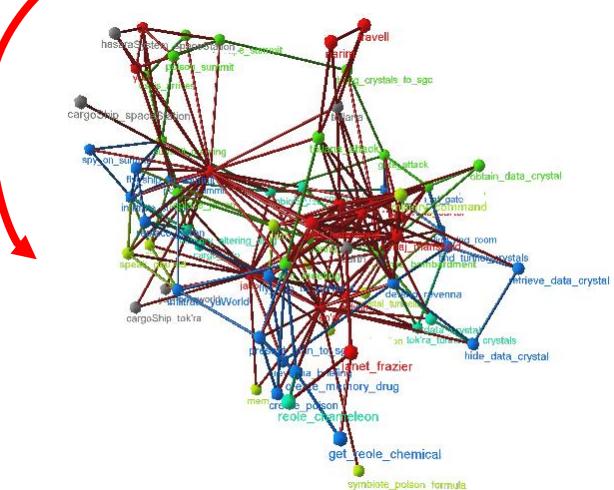


DNA (Dynamic Network Analysis)

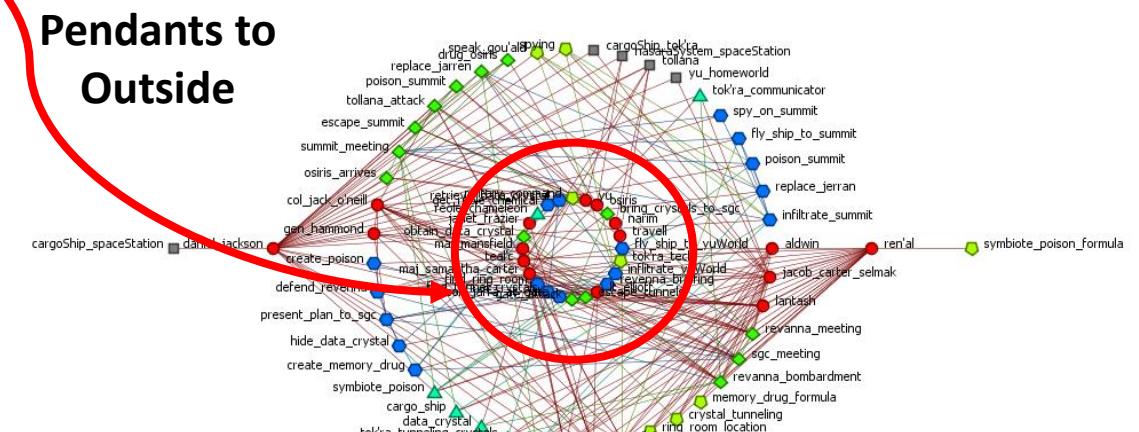
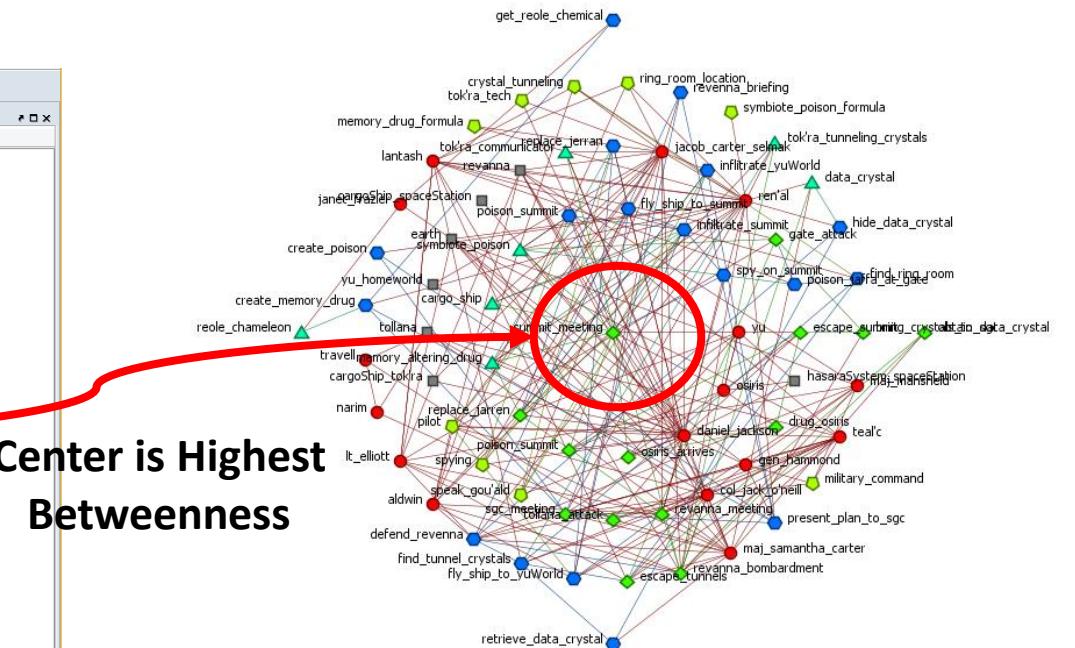


Center is Highest
Betweenness

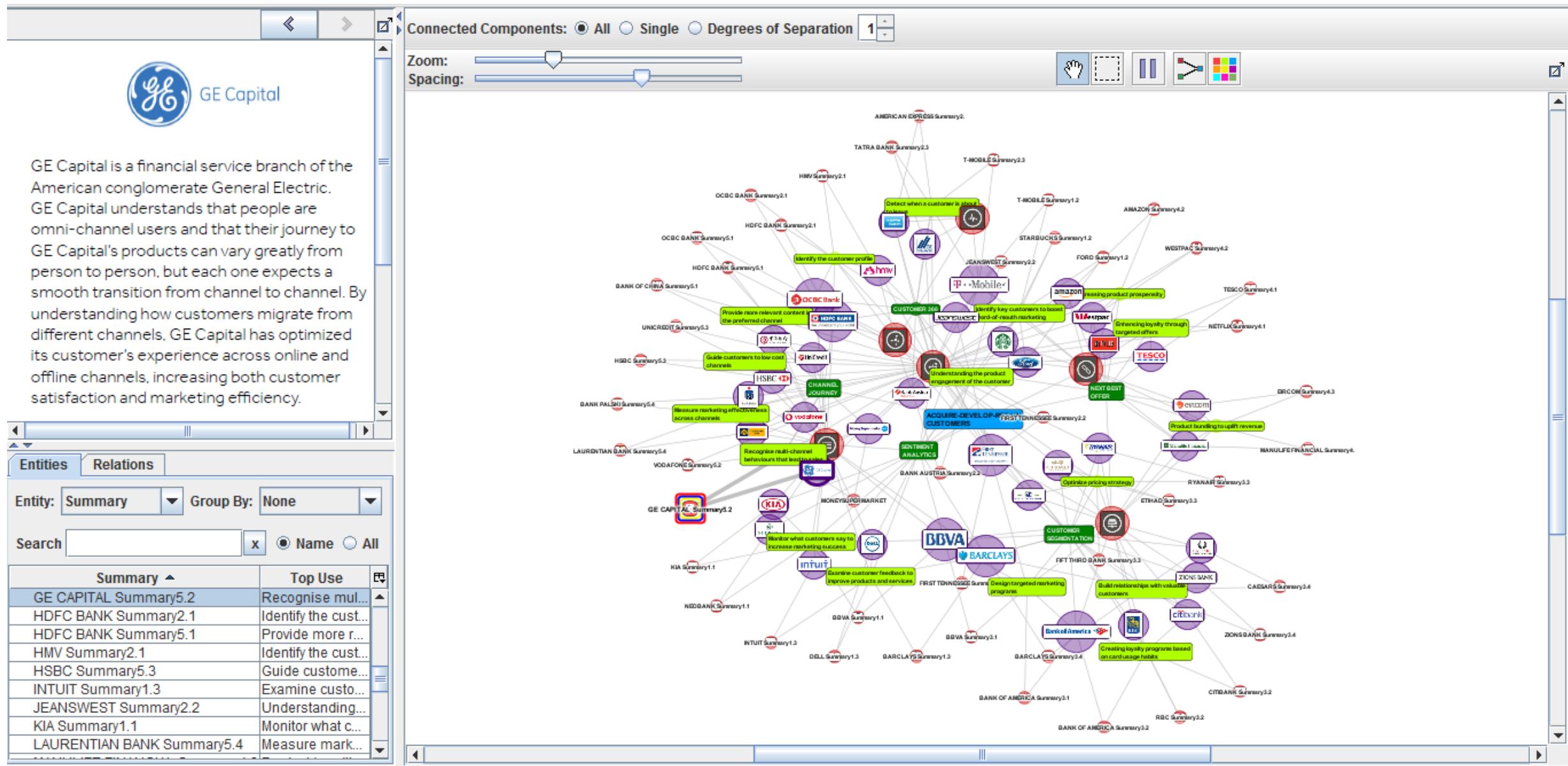
3D View



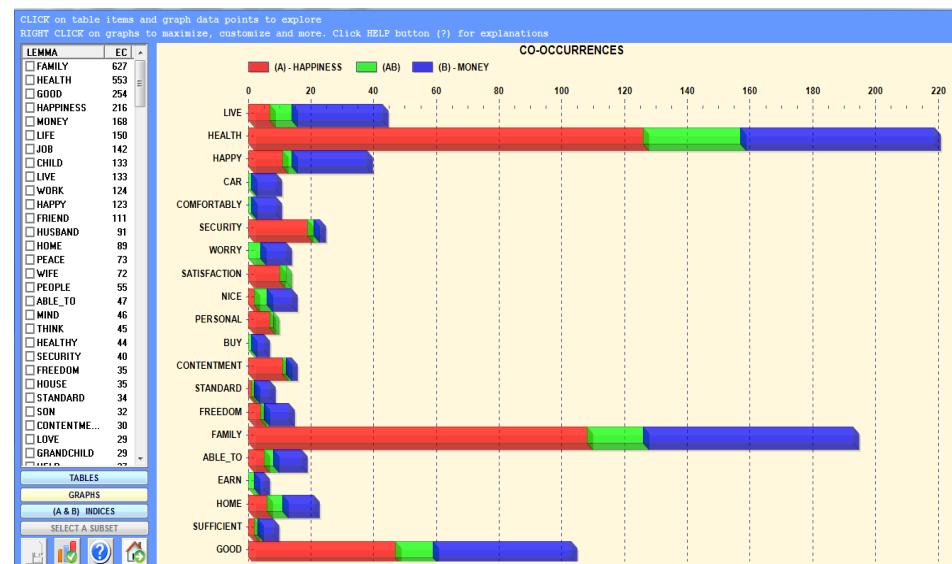
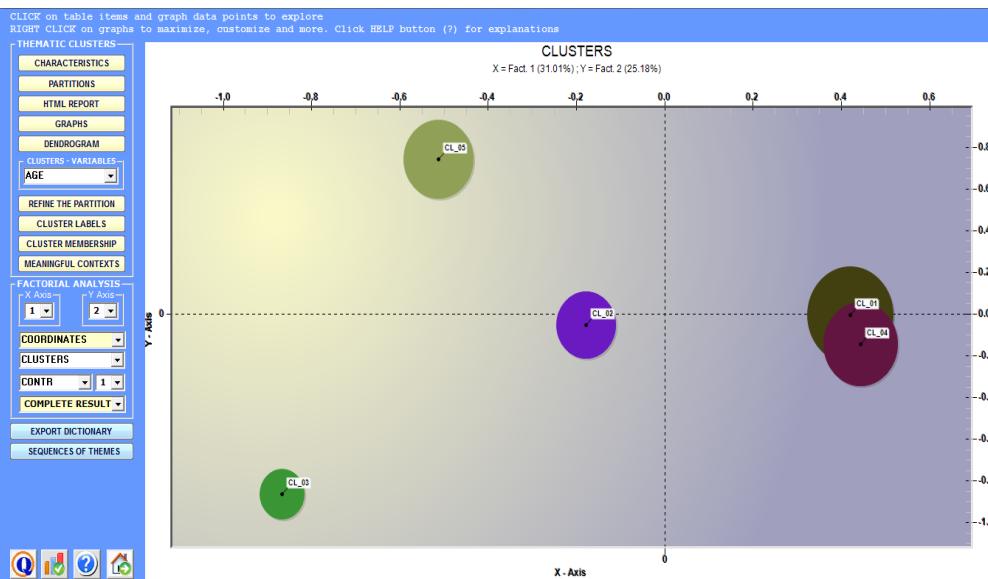
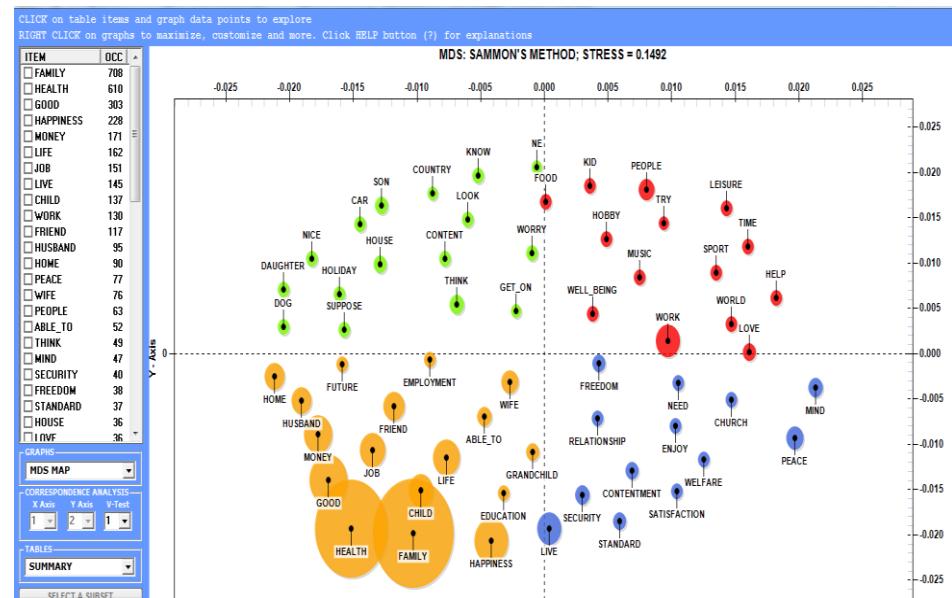
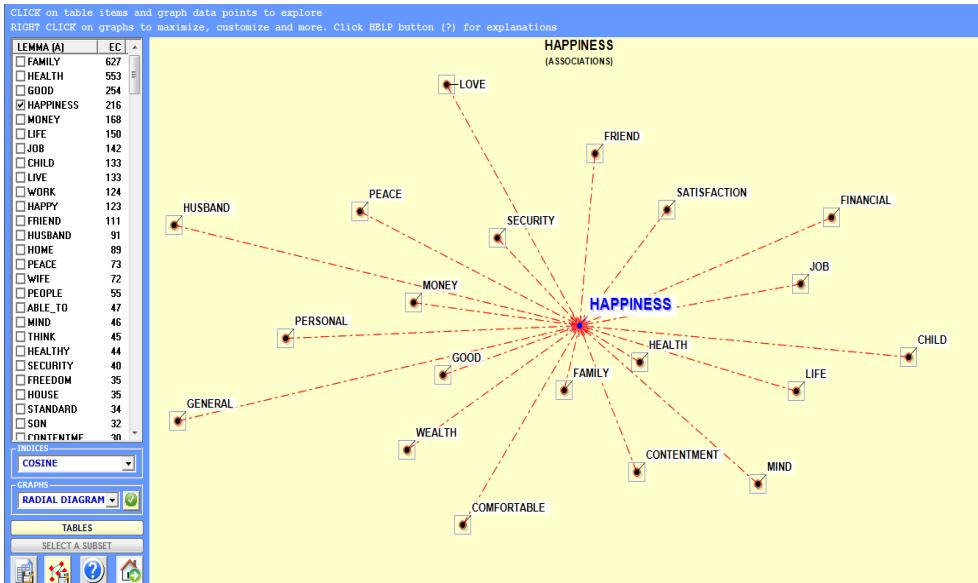
Pendants to
Outside



Graph Analytics



Open Ended Text Analytics



Media Intelligence



Open Source Intelligence meliputi media online, cetak, TV, media social, menganalisis trend, expose, influencers, issue, sentiment, media, mapping, network, secara cepat dan akurat (*velox et exactus*).

DASHBOARD

President SBY

This dashboard provides a comprehensive overview of President SBY's statements and opinions. It includes sections for Related News, Statements, Opinions, Pictures, TV & Videos, and a News section.

Statements: Includes news items such as "Presiden Minta Investigasi Kabekaran" and "Presiden SBY Bantah Yudhoyono menulis lepaskan segera menginvestigasi kelelahan di Pasar Senen, Jumat (25/4). Iml disampaikan Presiden saat menemui wacana koalisi dan dukungan terhadap perpres Palopo".

Opinions: Includes news items such as "RTH (@SBPuthuyono): Di Samarang, Presiden SBY berkenan dg seluruh Selaras, Siti Zainab, Tuti Tumilawati & Karsi TDI dg teman makan hukum!"; "Randy Tirta (@RandyTirta): Just now"; and "RT (@SBPuthuyono): Di Samarang, Presiden SBY berkenan dg seluruh Selaras, Siti Zainab, Tuti Tumilawati & Karsi TDI dg teman makan hukum!"; "MayaLe0064264 (@MayaLe0064264): Just now - Twitter"; and "RT (@Elia_Papua): Phoenix 138, Jakarta Selatan. Sekitar Jadi Presiden 2014-2018. Come AHN yg Cooke Gantikin Saya (@Presiden2014com): Just now - Twitter".

Pictures, TV & Videos: Shows a thumbnail of a video where SBY is shaking hands with another man.

News: Shows a list of recent news items, including "Lampung Legislatif Belum Tuntas, Isak Tinjauan Impar Penganggaran" and "Tribunnews.com, JAKARTA - Ketua Umum Partai Demokrat, Ahmad Jakob Riwut anggap tidak adil jika penganggaran pemeringkatan pariwisata yang dilakukan oleh pemerintahan SBY".

Partai Golkar

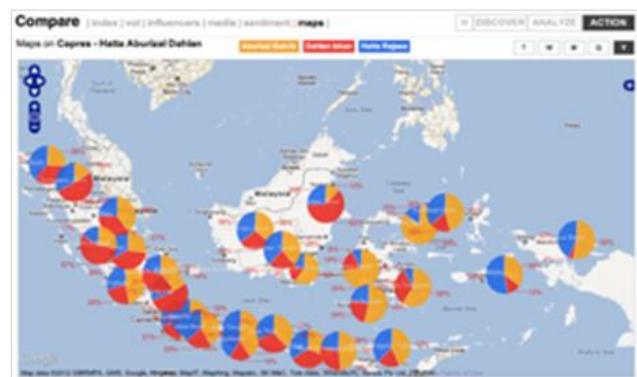
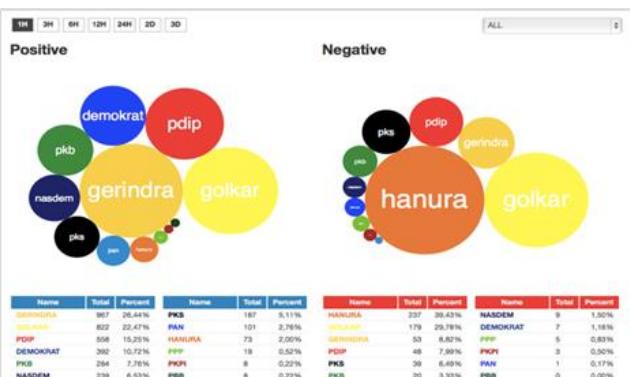
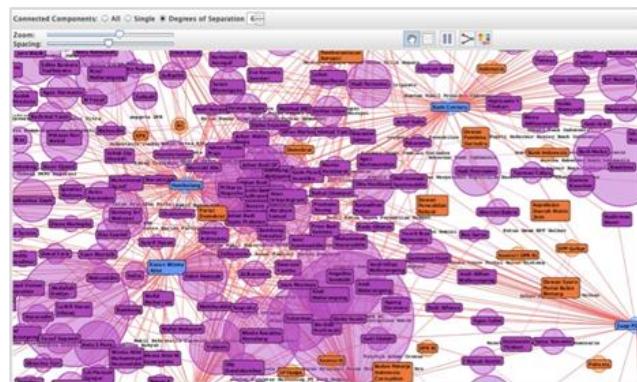
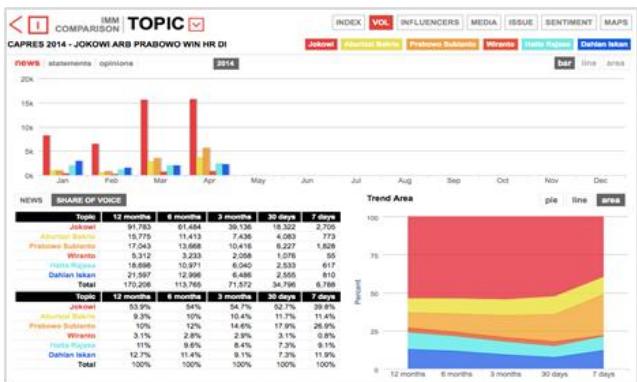
This dashboard provides a detailed analysis of Golkar's influence and media share. It includes a pie chart of media share by source, a grid of top influencers, and various charts for news monitoring and sentiment analysis.

Media Share: Pie chart showing distribution of media share across different sources: Papar (blue), Media (green), Tafsir News (light green), Suara Kacab (orange), and Influencers (red).

Top Persons: Grid of portraits of top influencers, including Surya Paloh, Agus Salim, and others.

News: Shows a list of news items, including "Lampung Legislatif Belum Tuntas, Isak Tinjauan Impar Penganggaran" and "Tribunnews.com, JAKARTA - Ketua Umum Partai Demokrat, Ahmad Jakob Riwut anggap tidak adil jika penganggaran pemeringkatan pariwisata yang dilakukan oleh pemerintahan SBY".

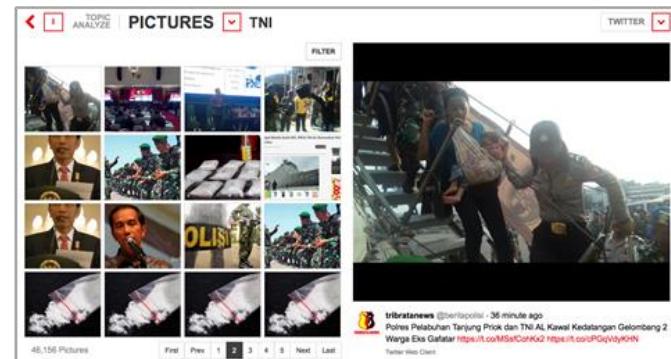
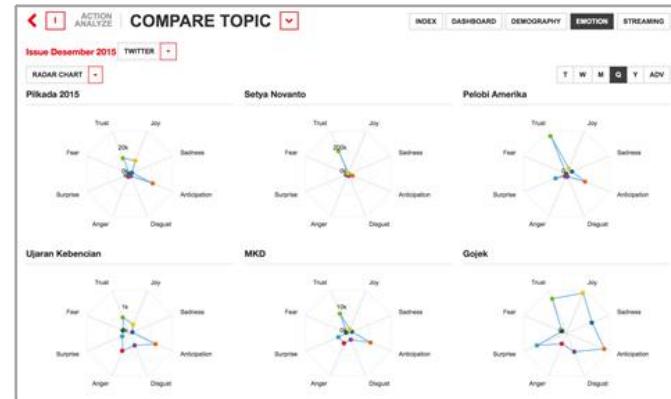
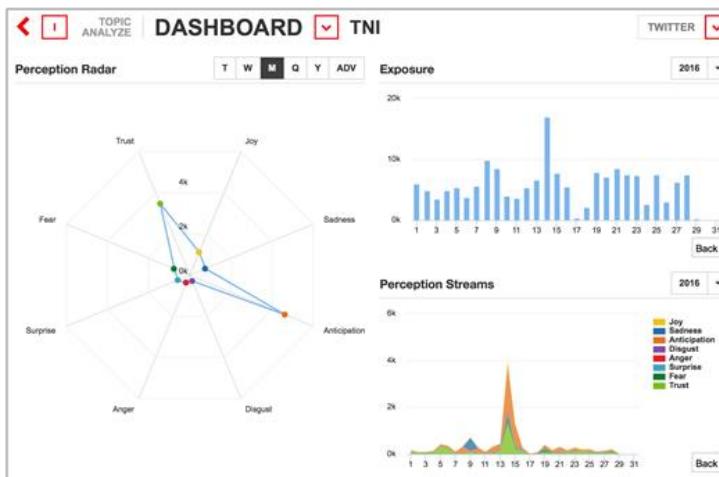
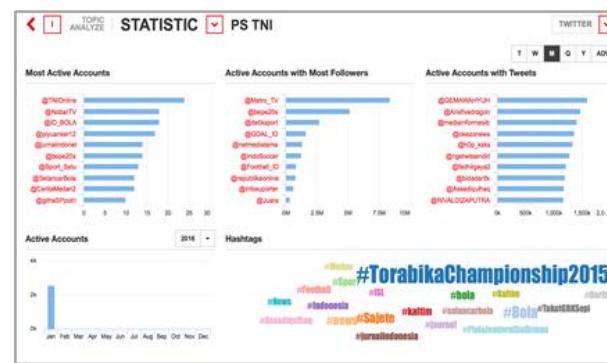
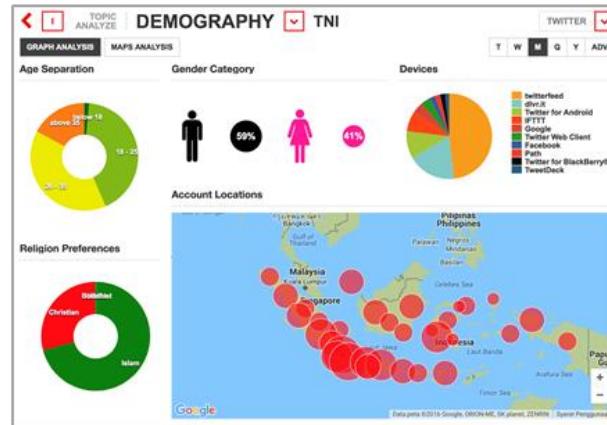
Sentiment Analysis: Line chart showing sentiment trends for the year 2014.



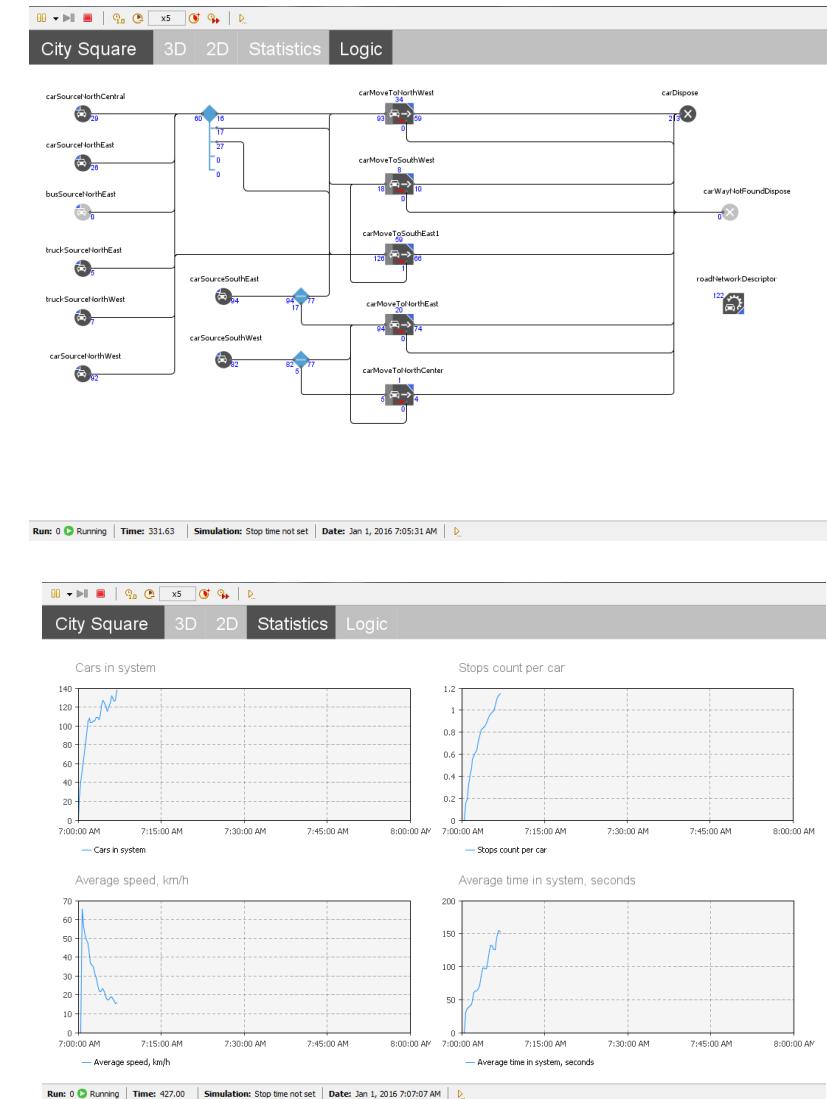
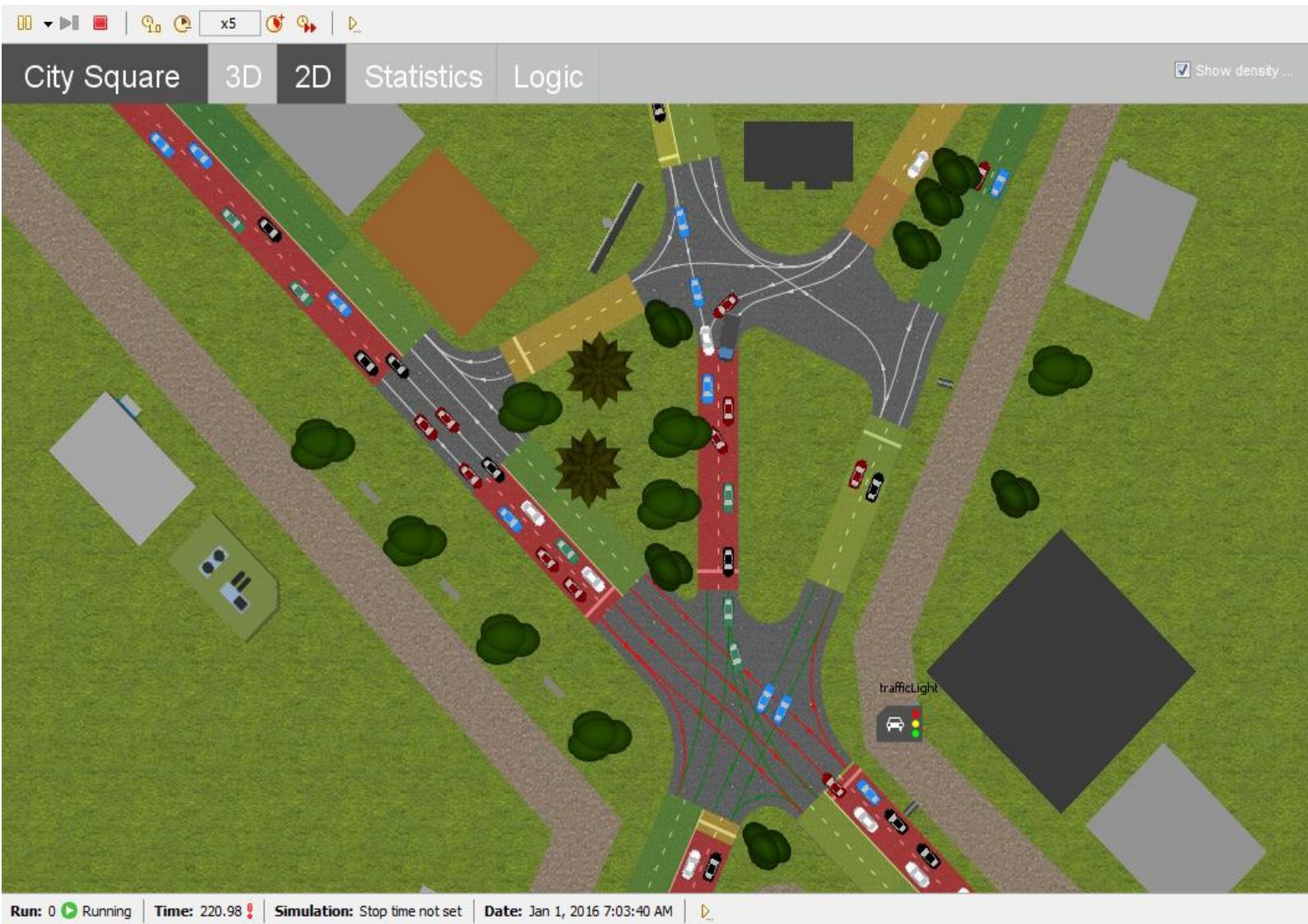
Perception Intelligence



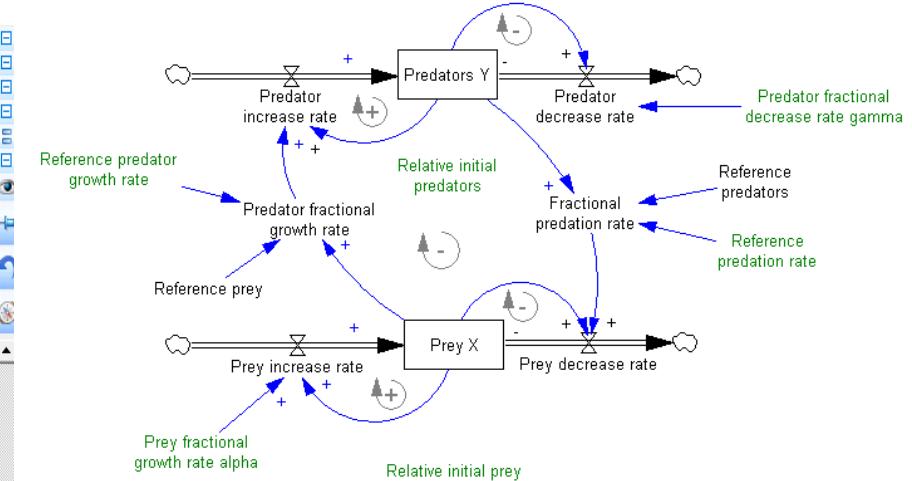
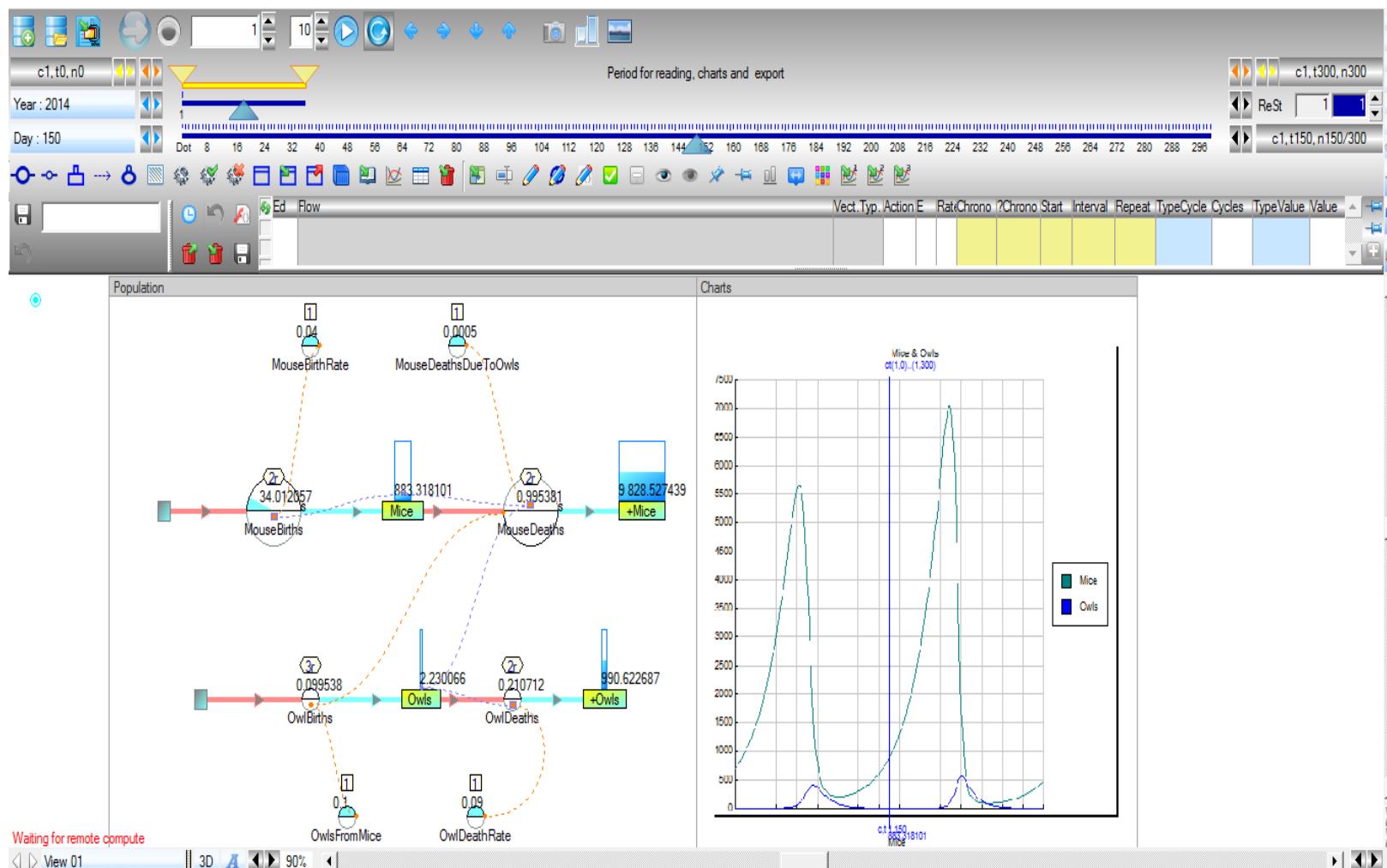
Melakukan analisis opini publik dari social media untuk mendapatkan secara real time persepsi publik terhadap satu kejadian, tokoh, organisasi, kasus, issue, ataupun kebijakan. Khusus Twitter digunakan untuk mendapatkan demografi publik berdasar profile user (age, gender, location, activity, awareness, influence, hobby).



Discrete Event & Agent Based Simulation



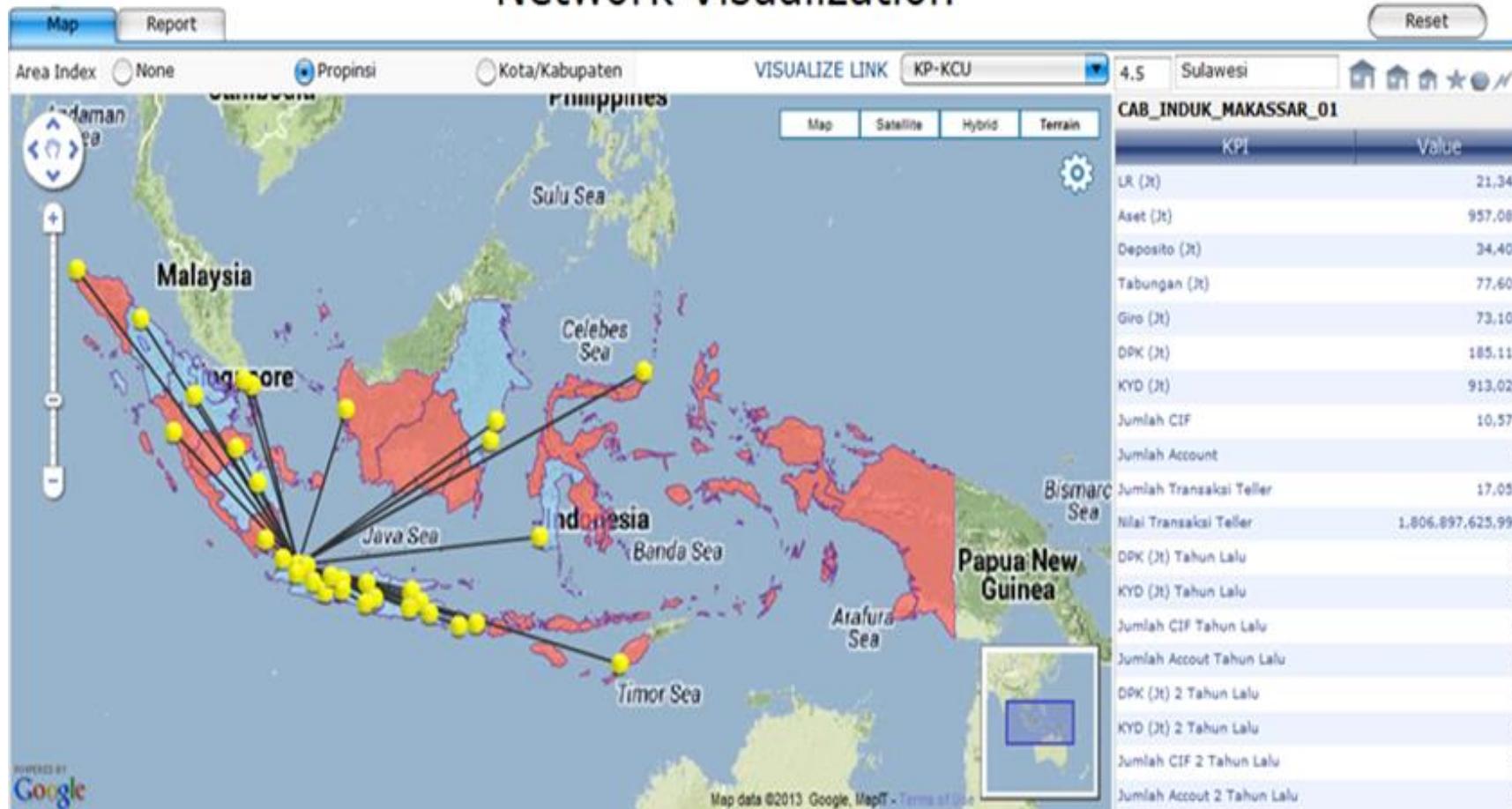
System Dynamic



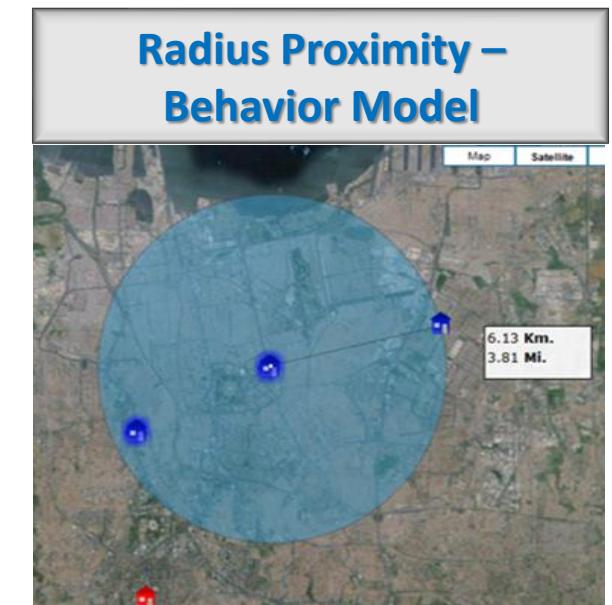
Location Intelligence



Network Visualization



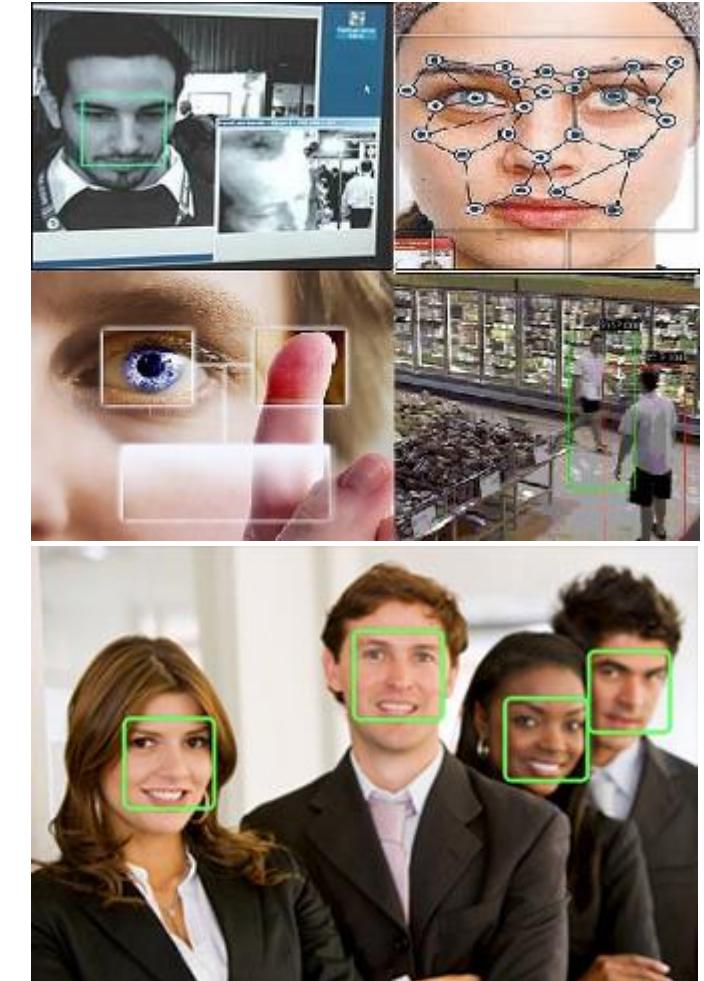
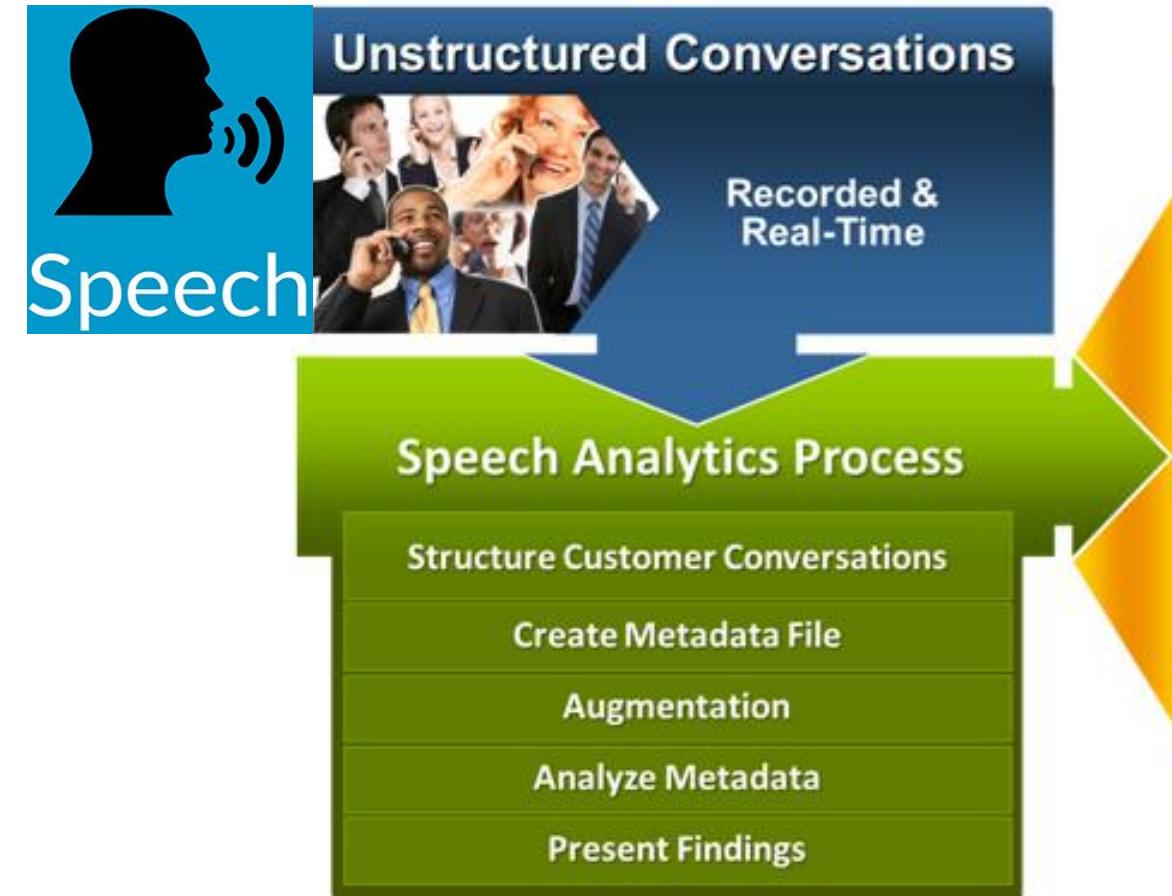
Radius Proximity – Behavior Model



MULTI LINK– Behavior Model



Cognitive Computing





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