OpenKE - Tradecraft
Open Source Knowledge Enrichment Database
Labatory for Analytic Sciences
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The Art of Analysis

1. Where do I start?
2. What do I want to know?
3. How do I get the data?
4. How do I analyze the data?

What do I want to know?
Question Decomposition

REQUIREMENTS

<table>
<thead>
<tr>
<th>WHAT DO I WANT TO KNOW?</th>
<th>REQUIREMENTS</th>
<th>WHAT DON'T I KNOW?</th>
</tr>
</thead>
<tbody>
<tr>
<td>A) I know what I am looking for and have good sources to the answer.</td>
<td>The answer lies somewhere in the data (I've investigated, but I have no idea where it is).</td>
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<tr>
<td>B) I know the question, and I just need to collect the right data to answer it.</td>
<td>I need to leverage the opportunity to structure the data so that we can discover insights and share new intelligence.</td>
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<td>C) I know what I want to know and I just need to collect the right data to answer it clearly.</td>
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<td>D) I need to leverage the opportunity to structure the data so that we can discover insights and share new intelligence.</td>
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What do I want to know?

A) What you know that you know.
B) What you don’t know that you know
C) What you know that you don’t know and
D) What you don’t know that you don’t know.

How do I analyze the data?

What is different about the OpenKE approach?

- Assisitive technology to accelerate critical thinking skills
- Implements the use of knowledge graphs
  - A networked data model that understands facts about people, places, and things and the relationships that connect these entities together.
  - Create structure out of unstructured data
  - Run analytics immediately
  - Automatically enrich other data sources
  - Spearheads research in privacy and policy procedures in the open source environment for the IC.
  - Dark and Deep Web exploration
  - Understanding the National Open Source Committee (NOSC) implementation of confidence scoring and source reliability
- Leverages collaboration in the core OpenKE environment to provide analysts with a superior user experience
  - Internal forum discussions
  - Extensive documentation
  - Targeted data retrieval
  - Repeatable, scaleable techniques & capabilities to enhance workflows and address Big Data challenges

How do I get the data?

Structuring information to generate ideas, discover unknowns and help build dictionaries & parsing rules based off key terms to extract data of value

Visualization

- Instrumentation
- Search terms
- Domain insight
- Source relevance
- Job Status / Performance
- Access / Auditing

Word Cloud by Voyant: Image composed of words used in a particular text or subject, in which the size of each word indicates its frequency

Pacific Northwest National Laboratory Knowledge Graph generated from OpenKE data

PESTLES: Independent environmental influences - Political, Economic, Social, Technological, Legal, Environment, Security Forces