

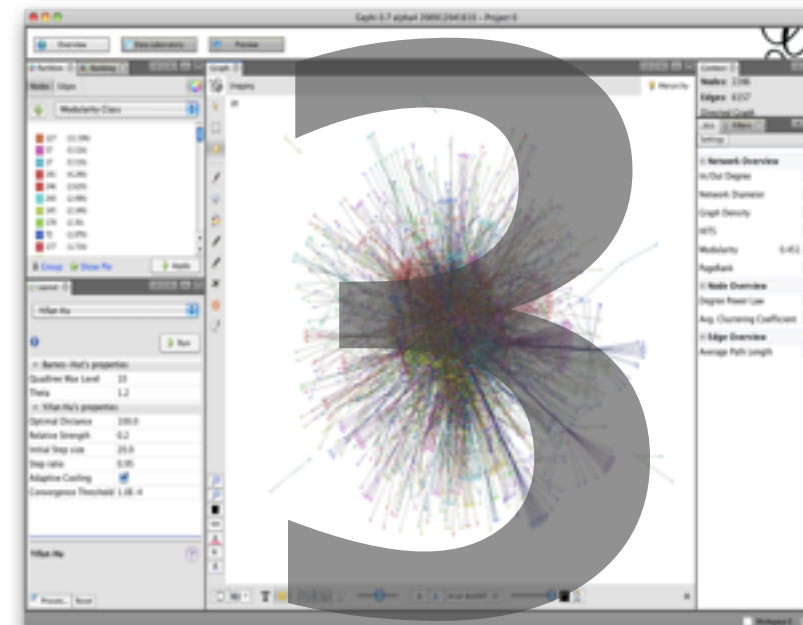
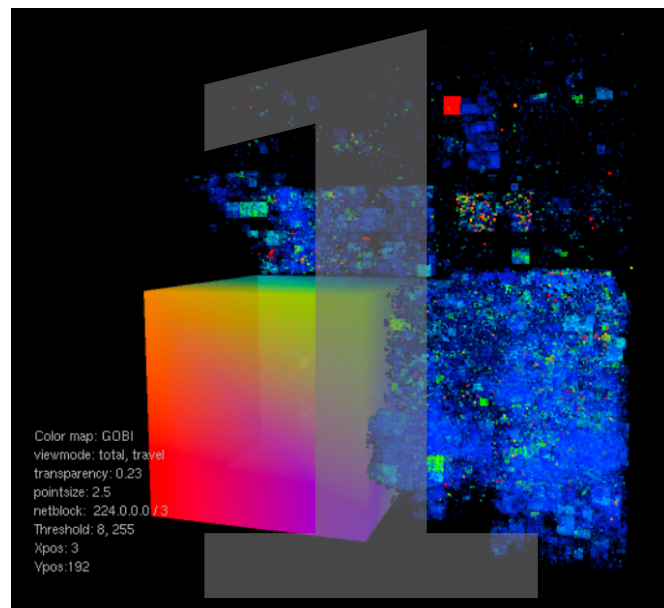
# Visualization Trends And Where We Are Today

**Data**

**Cloud**

**Tools**

**Security**



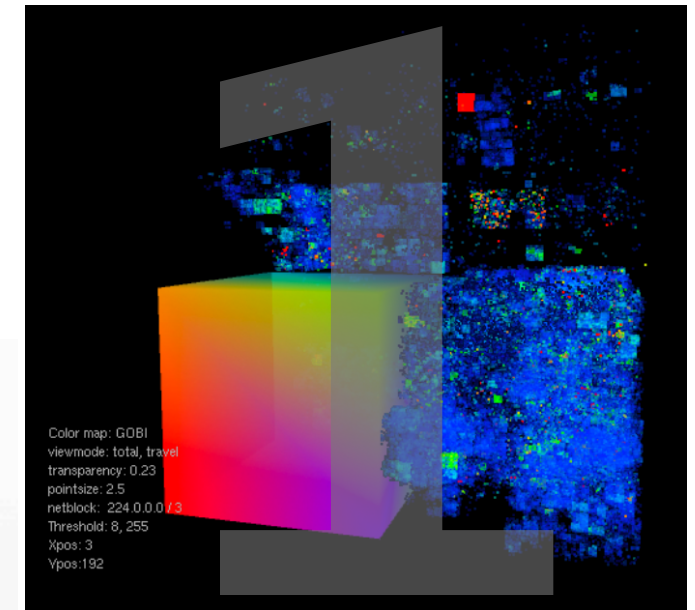
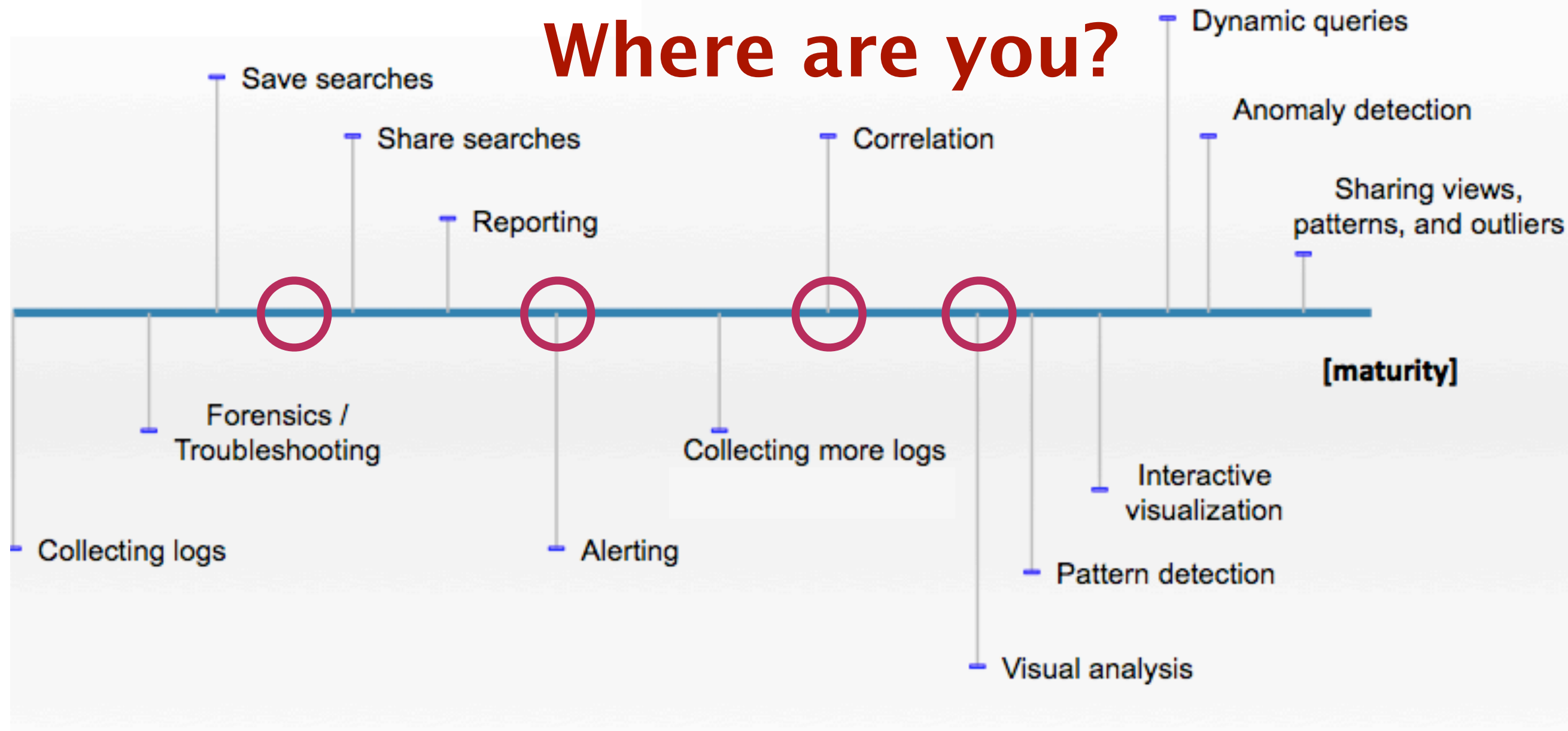
Raffael Marty – @zrlram

SANS 2010, Washington, D.C.



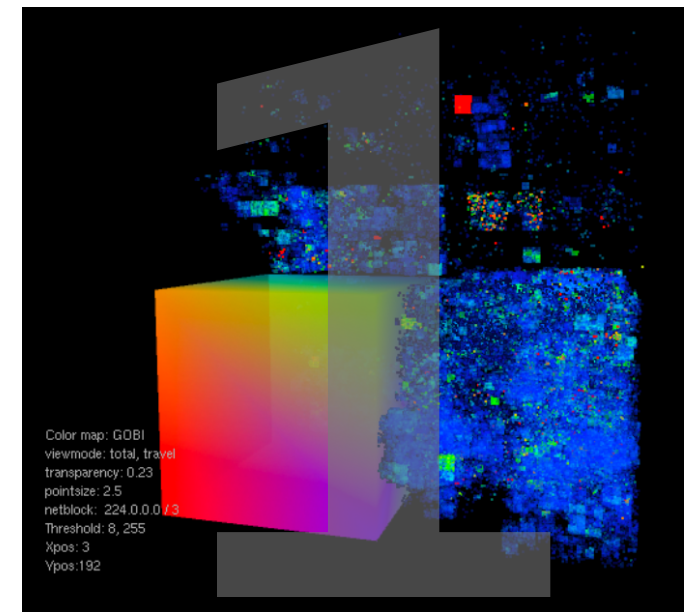
# Log Maturity Model

## Where are you?



# Data

- **No data – no visualization**
- We don't even have / **collect** the data
- It is too **hard** to collect data
- We don't **understand** our data!
- Log management is **expensive**
- **Big data** movement enables large data crunching
- We need data **interoperability** standards – we will get one



# Cloud

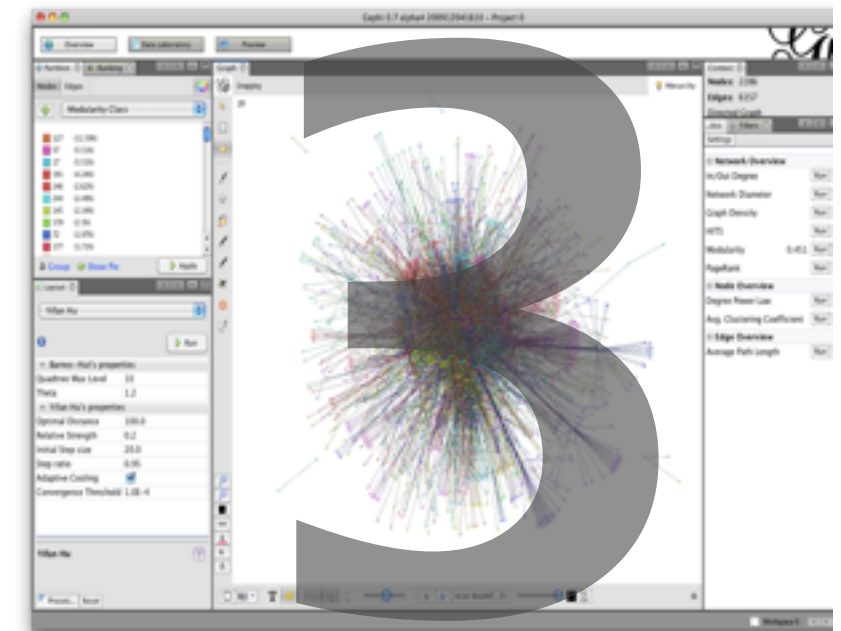
- A **chance** to build visibility / logging in
  - Encourages **open standards** (REST, JSON, etc.)
  - Helps advance **Web based** technologies
  - Tools are available to **everyone**
- 
- Advancement of **Big Data** tools
  - **Build your own**





# Tools

- We are **nowhere!**
- Same **old** – all over
  - Does your SIEM support real visualization?
- **Missing:** Brushing, Interactivity
- Help the user **understand** the data!
- The move to the **Web** (HTML5)
- **General purpose** tools

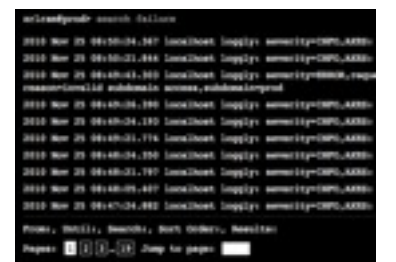
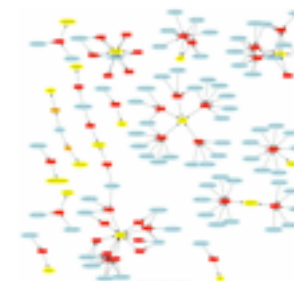


Overview first



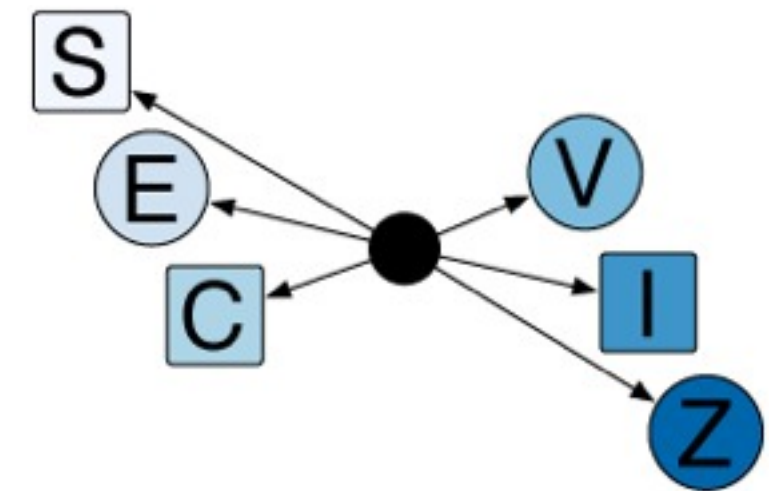
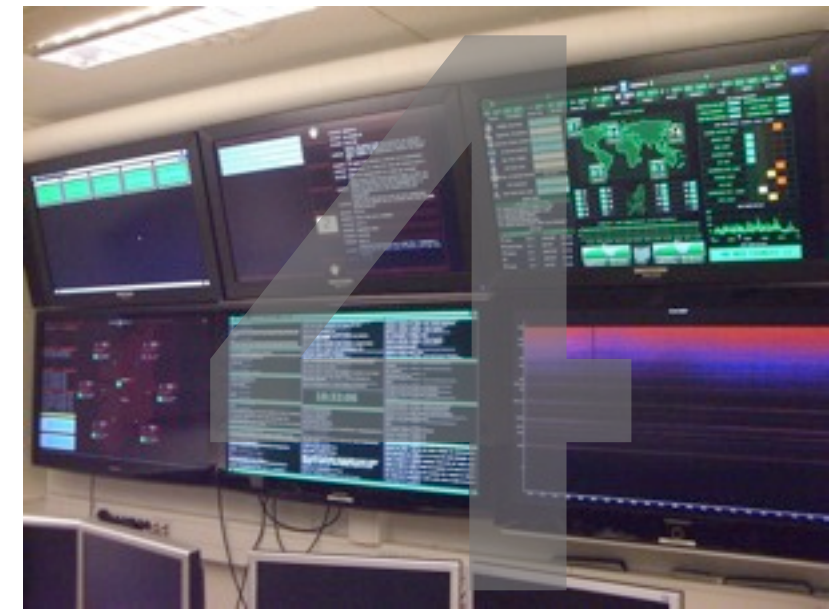
Zoom

Details on demand

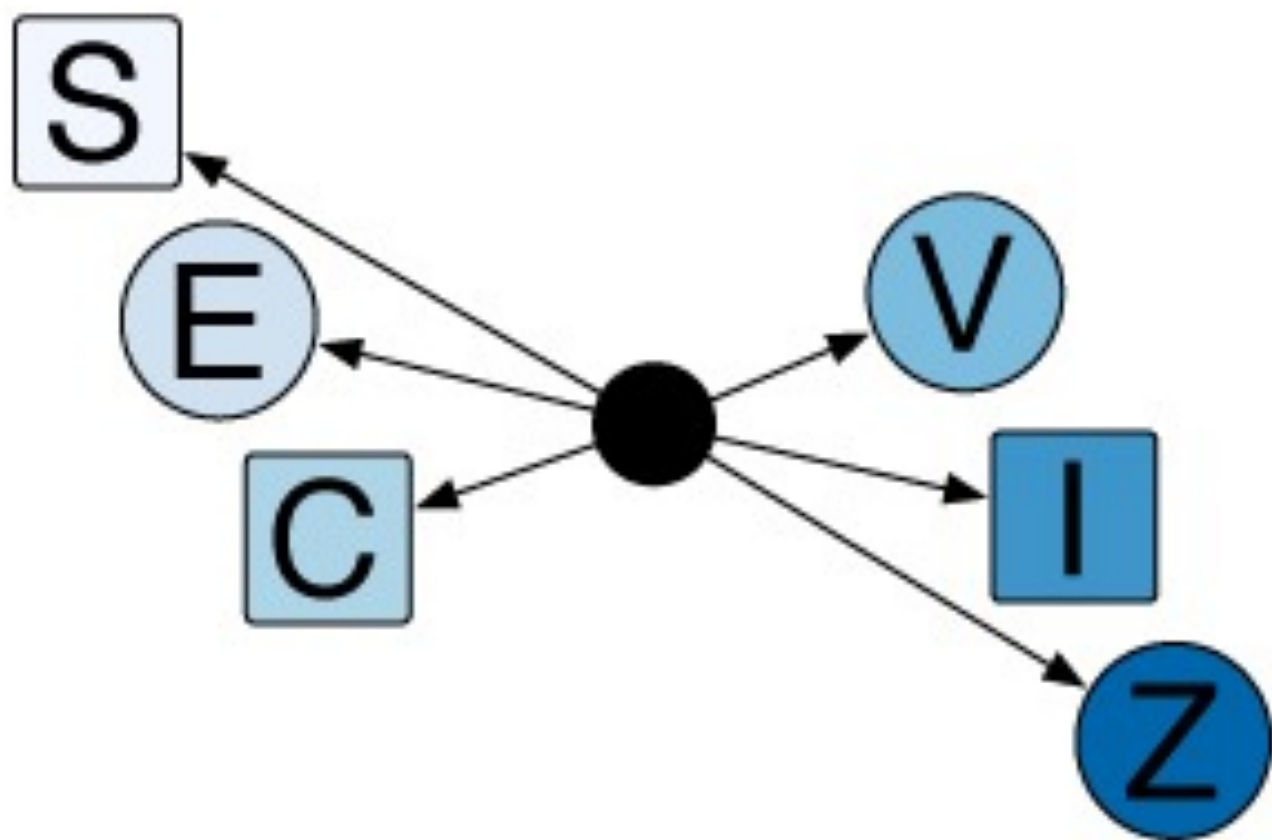


# Security

- We **don't have** the data
  - Hence, we don't know how to **visualize** it
  - Hence, we don't **understand** anything
- 
- We will see more **bad** examples
  - Visualization is and will stay an **afterthought**
  - More **individual, small** projects



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