

Technology Tracker

Expo: Spring, 2017

The Schedule {Robert Stewart}

- The Problem
- The Plan
- The Journey
- The Results

The Problem {Robert Stewart}

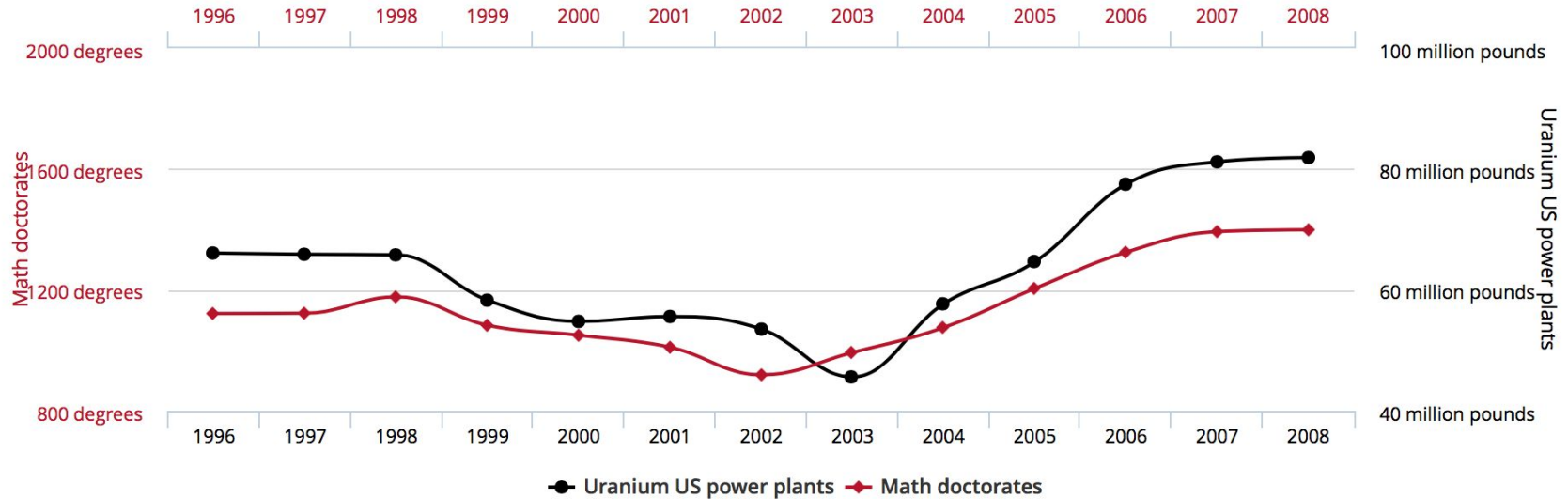
There is currently no suitable tool for business leadership to utilize in order to understand the maturity level of technologies.

The Plan {Robert Stewart}

- Acquire data sources
- Derive metrics from data
- Present metrics in a valuable manner

Math doctorates awarded correlates with Uranium stored at US nuclear power plants

Correlation: 95.23% ($r=0.952257$)



tylervigen.com

Data sources: National Science Foundation and Dept. of Energy

The Journey {Robert Stewart}

- Data Sources
 - PAIR Bulk
 - Metadata
 - Fast summary
 - Slow, but conglomerate results
 - PatFT
 - Full text
 - Slow, individual results

The Journey {Robert Stewart}

	PAIR	PatFT
Trends	Yes	No
Full text	No	Yes
Locations	Yes (slow, but batched)	Yes (slow, individual)
Company	No	Yes

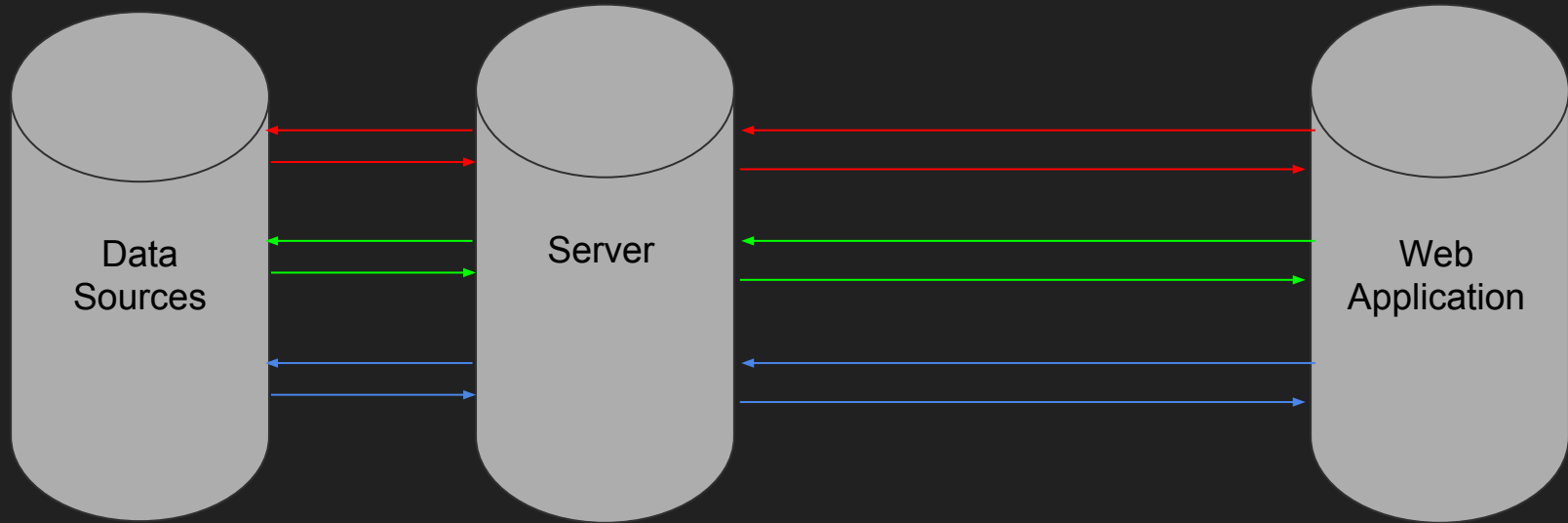
The Journey {Chris Campbell}

- Data analysis
 - Title, abstract, and full text
 - Frequency -> value
 - Filtering required
 - Word sets
 - Bigrams and trigrams

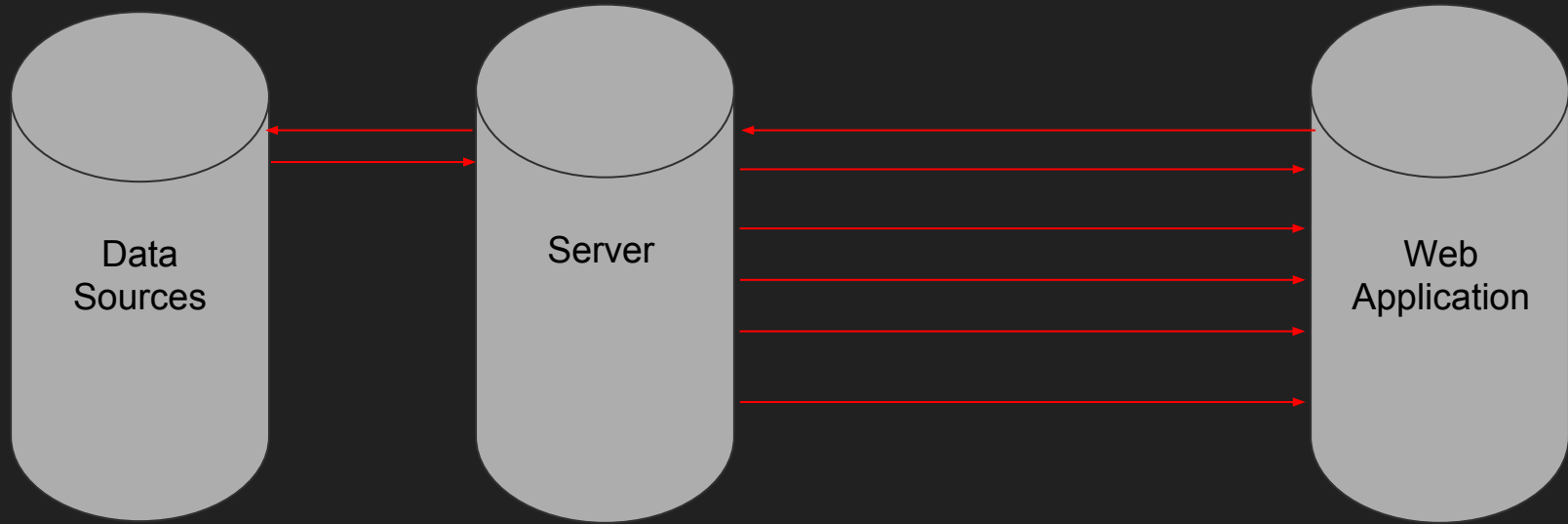
The Journey {Chris Campbell}

- Example for `"touch AND (screen AND display)"`
 - Bigrams: ('encoder', '110'), ('(not', 'shown)'), ('system,', 'comprising:'), ('video/audio', 'outputs'), ('bus', '112.'), ('determines', 'whether'), ('photoelectric', 'converting'), ('process', 'subroutine')
 - Trigrams: ('pvr', 'disk', '106'), ('docsis', 'modem', '101'), ('recognize', 'subsequent', 'soft'), ('displays', 'plurality', 'icons, '), ('vrcm', 'recognize', 'subsequent'), ('accordance', 'preferred', 'embodiment')

The Journey {Brandon Ratcliff}



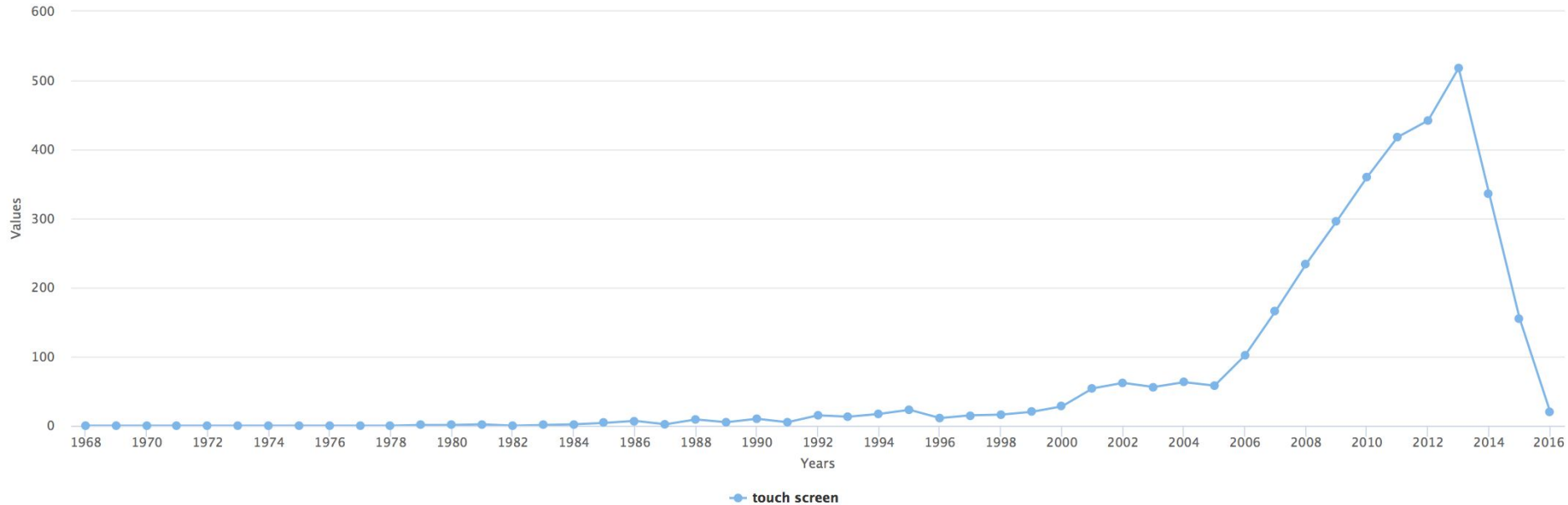
The Journey {Brandon Ratcliff}



- Database cache
- Bi-directional communication (Websockets)

The Results {Brandon Ratcliff}

Patents Filed Per Year




The Results {Chris Campbell} - Touch Screen

touch screen

Summary PAIR data ✓

Companies ✓

Bulk PAIR data  **Saving query results**

Heatmap ✓

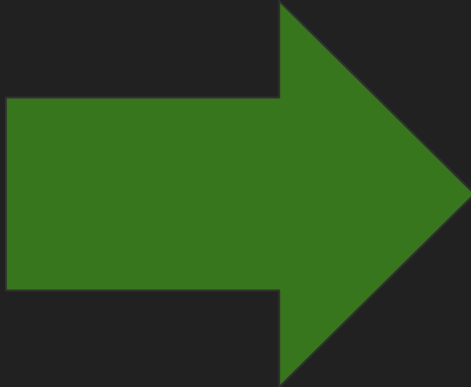
Keywords ✓

touch screen

add

Related Keywords

device	1588
display	1235
area	1015
user	964



The Results {Chris Campbell} - Touch Screen

Top Patenting Companies



Questions?

Thank you,
Dr. Donohoe!

Thank *you*!