

# Med Logiq

## Real-Time Solutions to “Big Data” Problems



Internet of Everything

Big Data

IT Infrastructure  
(analysis / storage)



Microsoft

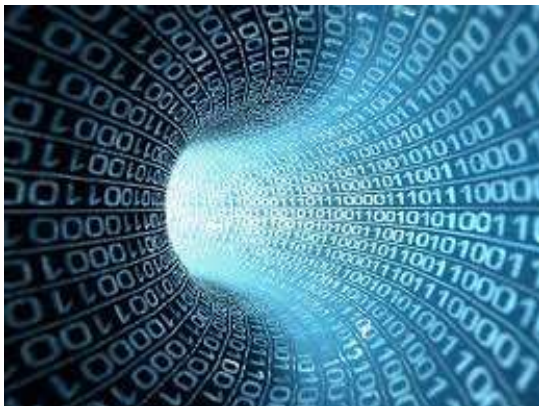
## Big Data

**The term “Big Data” refers to data that overwhelms, IT infrastructure and complicates data processing. The key challenges are described in terms of:**

**Volume** - Data from 50 billion devices, 1 trillion sensors

**Velocity** - Data is received at high frequency and speed

**Variability** - Data has many formats, structures, protocols



**“We are swimming in sensors and drowning in data, sensory data is growing at such a rate that our ability to make sense of it is highly constrained.”**

**-Dharmendra Modha, principal at IBM**

## The Internet of Everything (IoE)

**50 Billion objects (1 Trillion Sensors) will generate remote data sent to IT infrastructure by 2020.**

**The dominant data generating applications are:**

**Healthcare** – Every type of data, impacts everyone

**Security** – Predominantly video / surveillance data

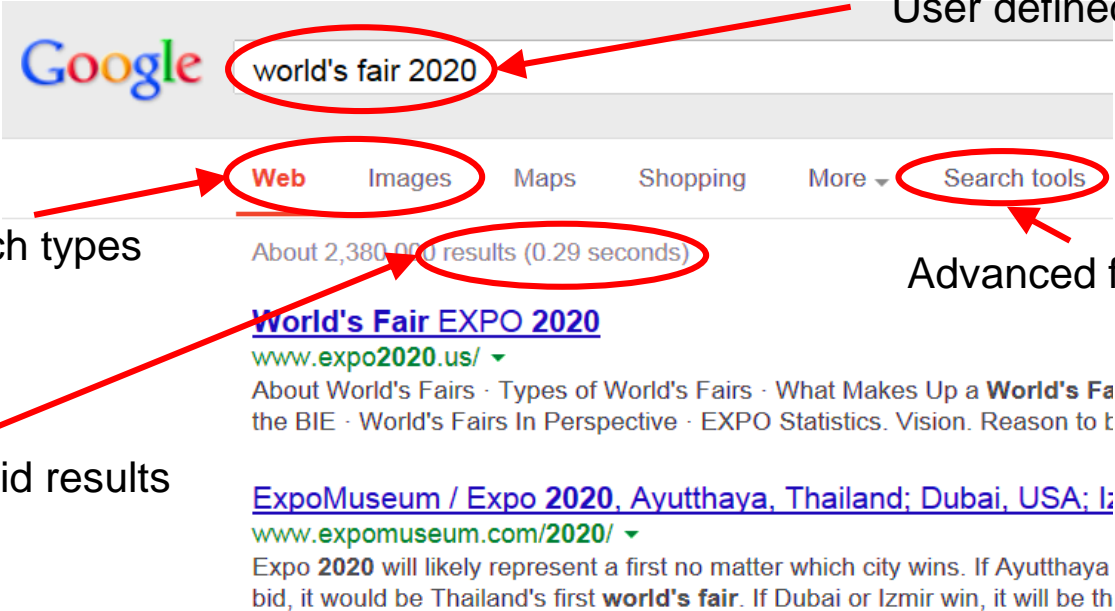
**“The more you can rely on sensor networks to control some aspects of data, the more efficient it can be”**

-Jonathan Collins, analyst at ABI Research



# Search Engines

## The original Big Data Solution



The image shows a screenshot of a Google search interface. The search bar contains the text "world's fair 2020". Below the search bar, there are tabs for "Web", "Images", "Maps", "Shopping", and "More". The "Web" tab is selected. The search results show "About 2,380,000 results (0.29 seconds)". The first result is titled "World's Fair EXPO 2020" with the URL "www.expo2020.us/". The second result is titled "ExpoMuseum / Expo 2020, Ayutthaya, Thailand; Dubai, USA; I:" with the URL "www.expomuseum.com/2020/". Red arrows and circles highlight specific elements: "world's fair 2020" in the search bar, "Web" in the tabs, "Search tools" in the top right, "About 2,380,000 results (0.29 seconds)" in the results summary, and the first search result.

User defined search terms

Defined search types

Advanced filtering options

Delivers rapid results

Search engines find and present users with their desired data

**“Getting information off the Internet is like taking a drink from a fire hydrant.”**  
*-Mitch Kapor, Lotus founder*

## Big Data “Solutions”?

**Big Data solutions focus on transporting, analyzing and storing the massive volumes of data generated**

### **Offer storage**

The more data the better

### **Offer throughput**

Higher volumes require capacity

### **Offer analytics**

More complex = higher cost (profit)

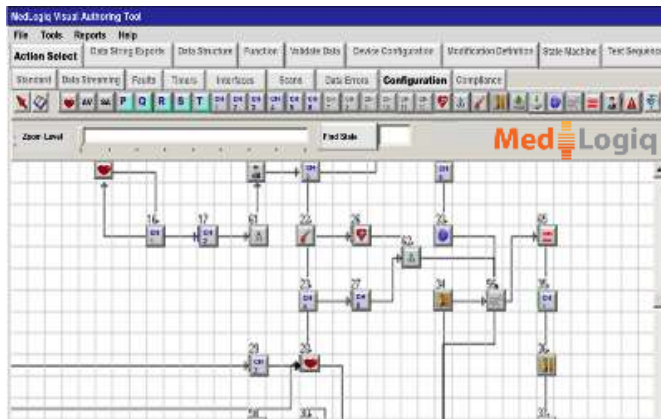


**“IDC estimates that by 2020, as much as 33% of the digital universe will contain information that might be valuable if analyzed, compared with 25% today.”**

*-IDC Report, The Digital Universe in 2020*

## Big Data “Search Engine”

**MedLogiq empowers you to select, analyze and receive the data you need where and when it originates**



- Data at your fingertips
- Agile, stable and reliable
- Rapid, accurate results
- “Future Proof” Big Data
- Maximize use of resources

**“[MedLogiq] embodies futuristic innovation, customer value addition and performance quality”**

*-Frost & Sullivan - 2013 Future of Mobility, Excellence in Best Practices Awards*



## Technology Gap

**There is a huge technology gap between the data origin and where it's analyzed and stored.**

### **National Academy of Sciences - Big Data Report**

Many data sources operate in real time, producing data streams that can overwhelm data analysis pipelines. Moreover, there is often a desire to make decisions rapidly, perhaps also in real time.

### **Centers of Excellence for Big Data**

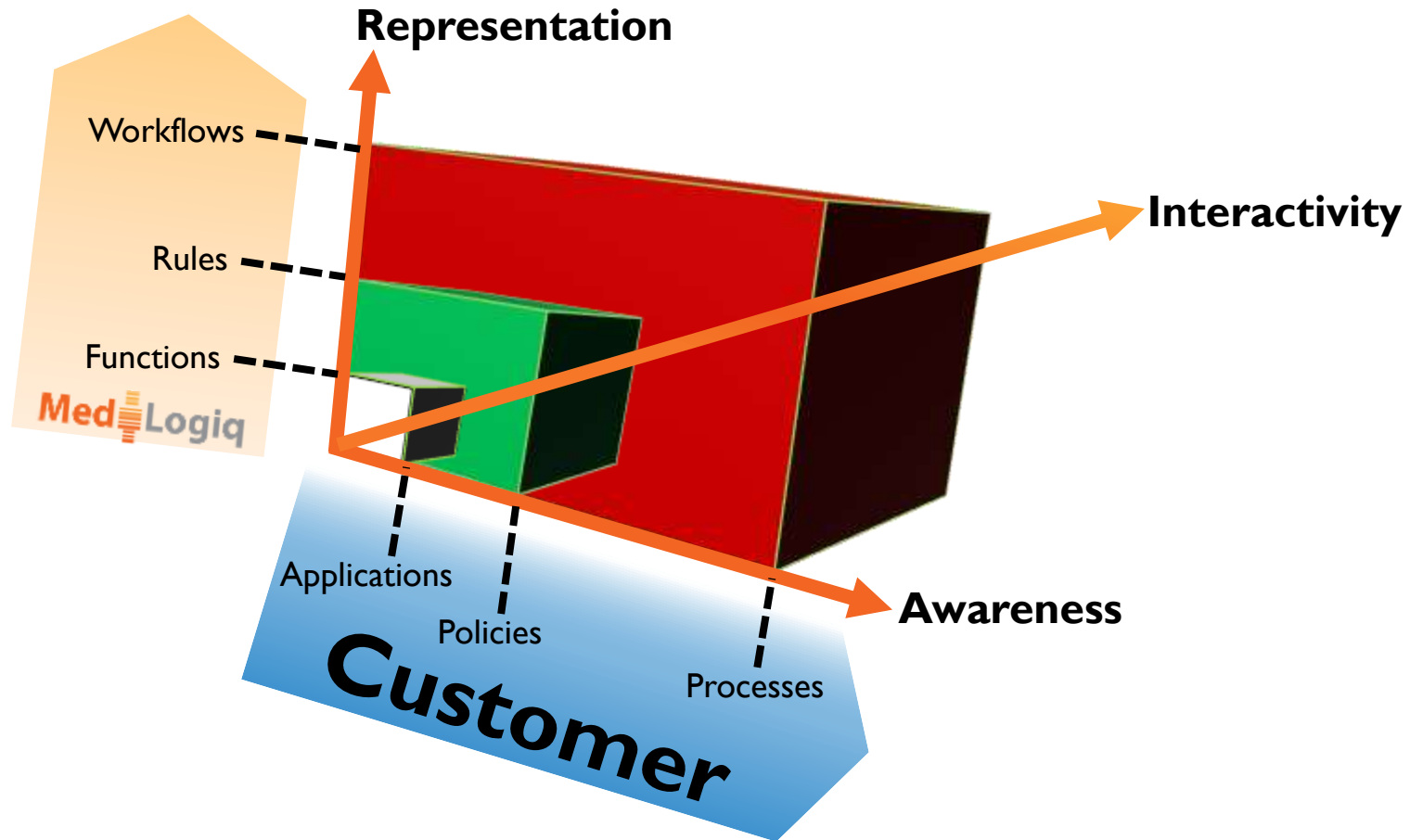
Investigators need straightforward means for 1) releasing datasets and metadata in standard formats; 2) obtaining access to specific datasets or portions of datasets; 3) studying datasets with the appropriate software tools in suitable environments; and 4) obtaining analyzed datasets.

**“Going forward, better decision-making will no longer be about the size of your data—it will be about matching the speed of your insights to how fast your business processes can act on them.”**

**-Accenture, *Big Data's Big Gap***



# Big Data Management



**“There is a big challenge in moving beyond specific applications and establishing an information model that will create re-use of the data generated in different application domains.” – Jan Holler, Ericsson Labs**



## Urgent Healthcare Applications

**The Healthcare Industry has many short-term, data driven needs due to regulatory, legislative and operational factors**

- 1997 FDA rules for Adverse Event Reporting currently being revised
  - ▄ **Actively monitor performance from “cradle to grave”**
- FDA actions against manufacturing facilities increased over 200%
  - ▄ **Unify all QMS into agile, centralized platform for full visibility**
- Product liability claims payouts have doubled YoY
  - ▄ **Test product quality and identify defects throughout PLC**
- Outsourcing of design & production at 80% and increasing
  - ▄ **Validate performance of software/hardware/equipment**
- Class I [Serious Adverse Events] recalls reached record levels in August
  - ▄ **Analyze to find root causes and confirm remedies quickly**

**“Now more than ever, someone or some organization needs to take a leadership role and help the medical device industry re-focus on quality.”**

*Medical Design Technology Magazine – July 2013*

## Solving Challenges Now and in the Future

### **MedLogiq has unleashed the power hidden in “Big Data” across operations for nearly two decades**

- Standardize data reports from remote data sources
- Enable real-time visualization and accelerate analysis
- Agile, easily adapts to new data sources / systems quickly
- Thrive during the explosion of new sensors / data
- Proven success, numerous industry accolades

**“You certainly have identified a great need in the medical device space. I can tell you from personal experience that the ability to track data and mine data as I understand your proposal will be a great asset to the industry, which is sorely behind compared to the automotive industry.”**

*Research Tools Manager at a top 10 medical device OEM*

