



Turning Big Data into Practical Data

About Evariant

- › The leading provider of a CRM platform based on a centralized healthcare data hub, analytics, and communications engine.

Contact Us Today



Today's Presenter

Gary Druckenmiller, Jr.
VP, Client Solutions
Evariant



The most
dangerous phrase
in the language is "we've
always done it this way."

Rear Admiral Owen Hooper

In the universe of

PATIENT EXPERIENCE

And in the life of a

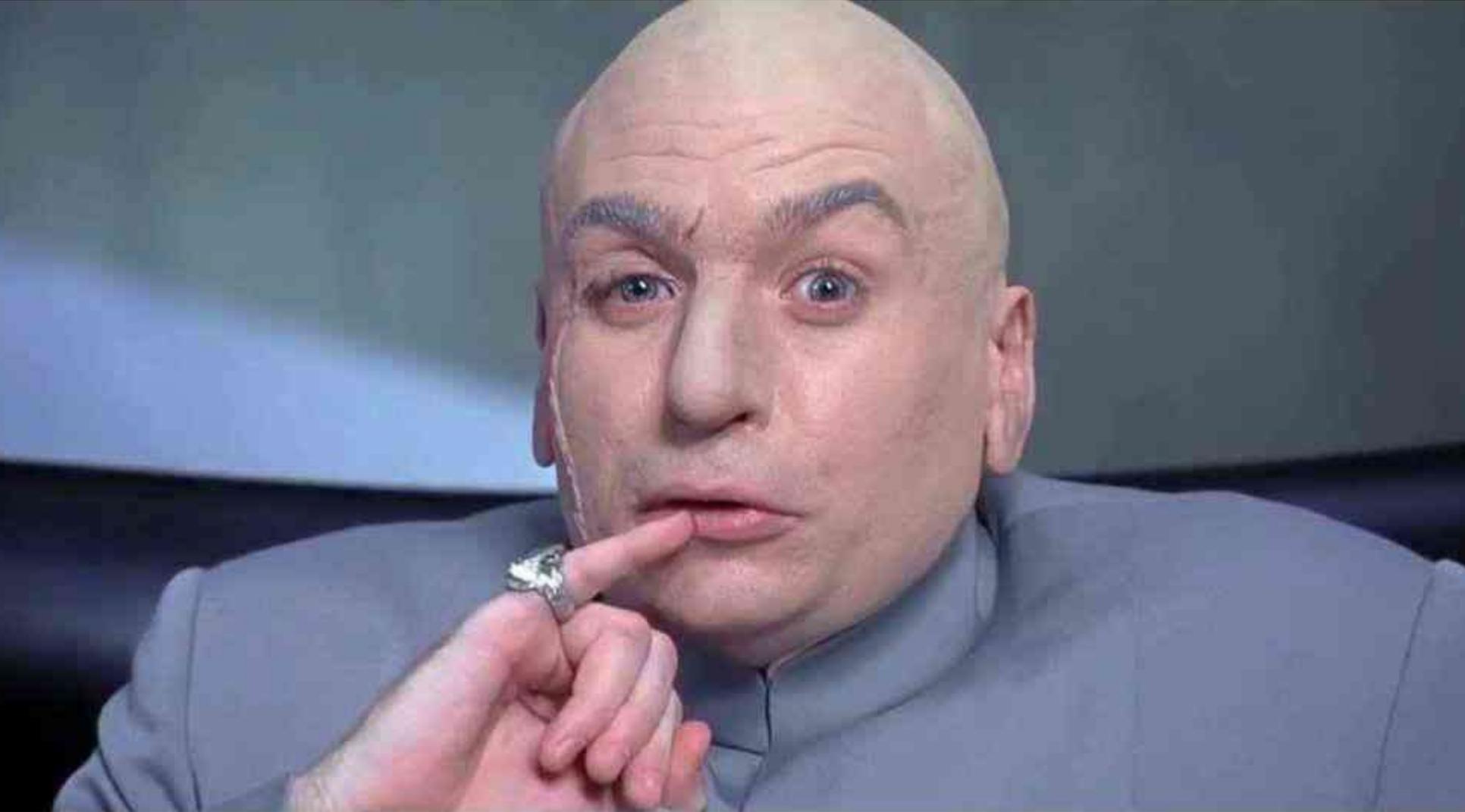
HEALTHCARE MARKETER

Make no mistake

BIG DATA IS EVIL





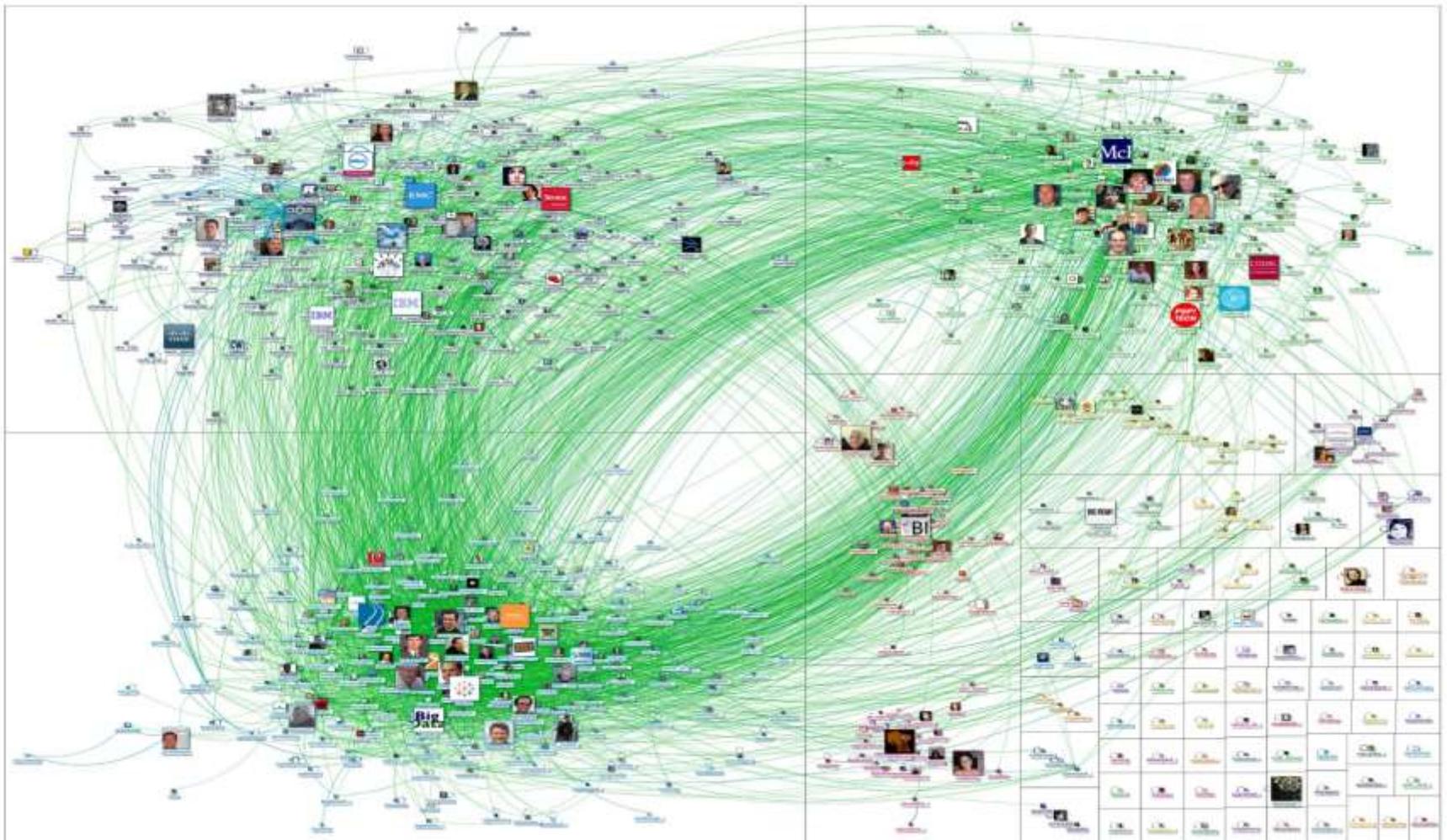




Have you ever

EVEN SEEN IT?

Social media network connections among Twitter users



Created with NodeXL (<http://nodexl.codeplex.com>) from the Social Media Research Foundation (<http://www.smrfoundation.org>)

Campaign Inquiries Analysis

Last Update: 8/6/2014 3:21:32 PM 

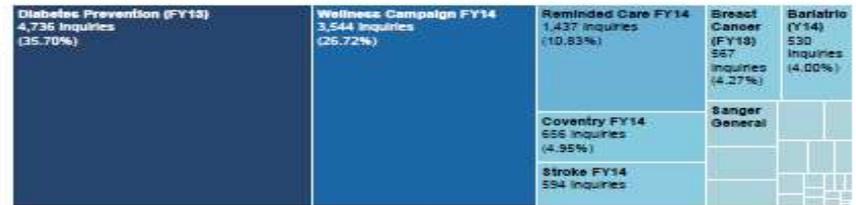
Inquiries Over Time by Campaign (Click to Filter)



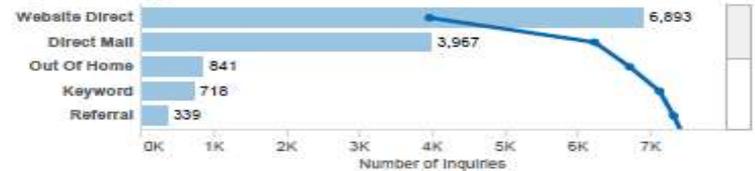
Date
9/1/2013 to 8/31/2014

Campaign
All

Inquiries by Campaign



Inquiries by Tactic Type



Inquiries by Zip Code

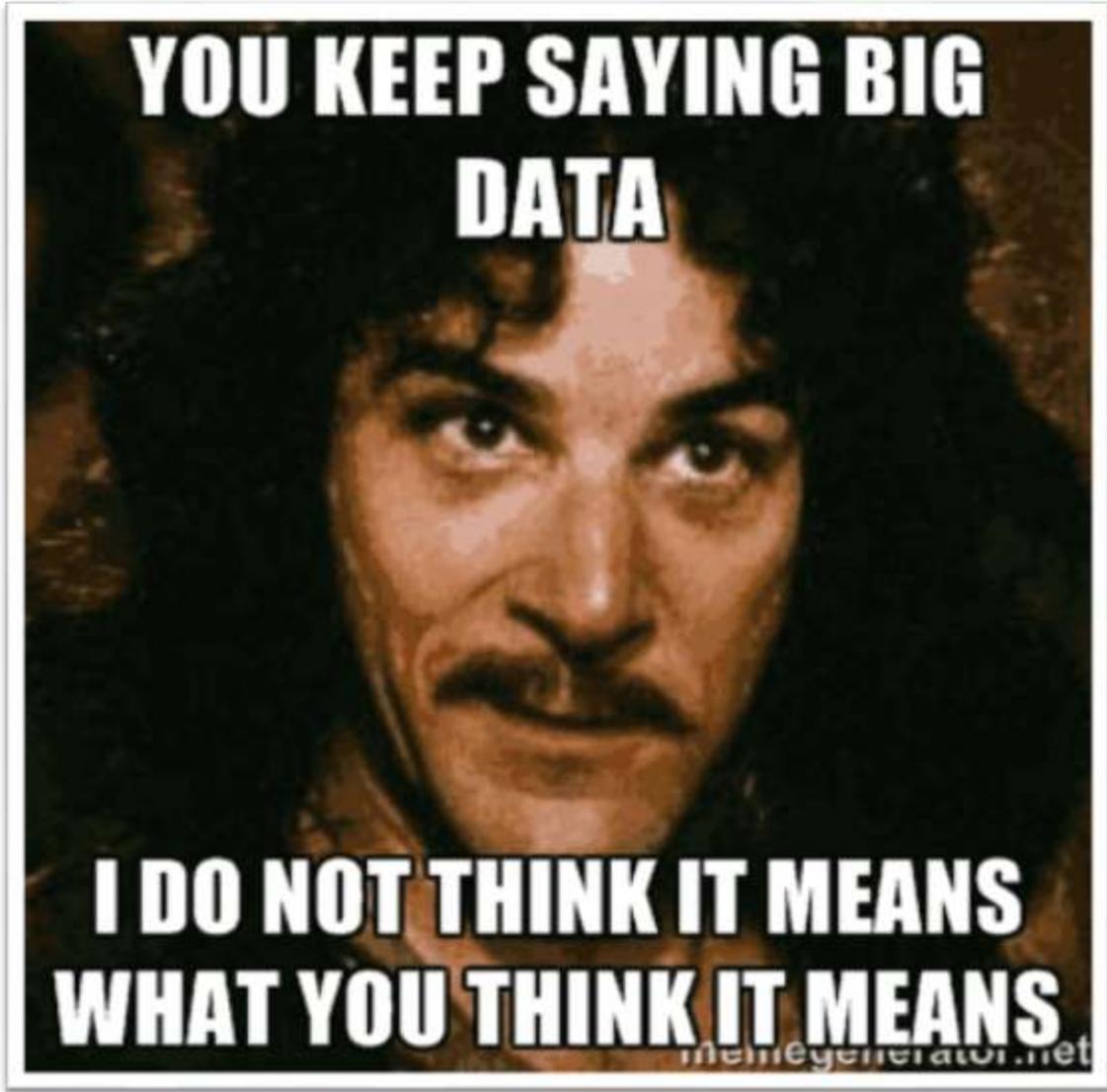


Inquiries by Vendor



Inquiries by Subject





BIG DATA IS LIKE **TEENAGE
SEX: EVERYONE** TALKS
ABOUT IT, **NOBODY** REALLY
KNOWS HOW TO DO IT,
EVERYONE THINKS
EVERYONE ELSE IS DOING IT,
SO **EVERYONE** CLAIMS THEY
ARE DOING IT...

DAN ARIELY

Old school marketers

EVADE IT

New age marketers

LOATHE IT

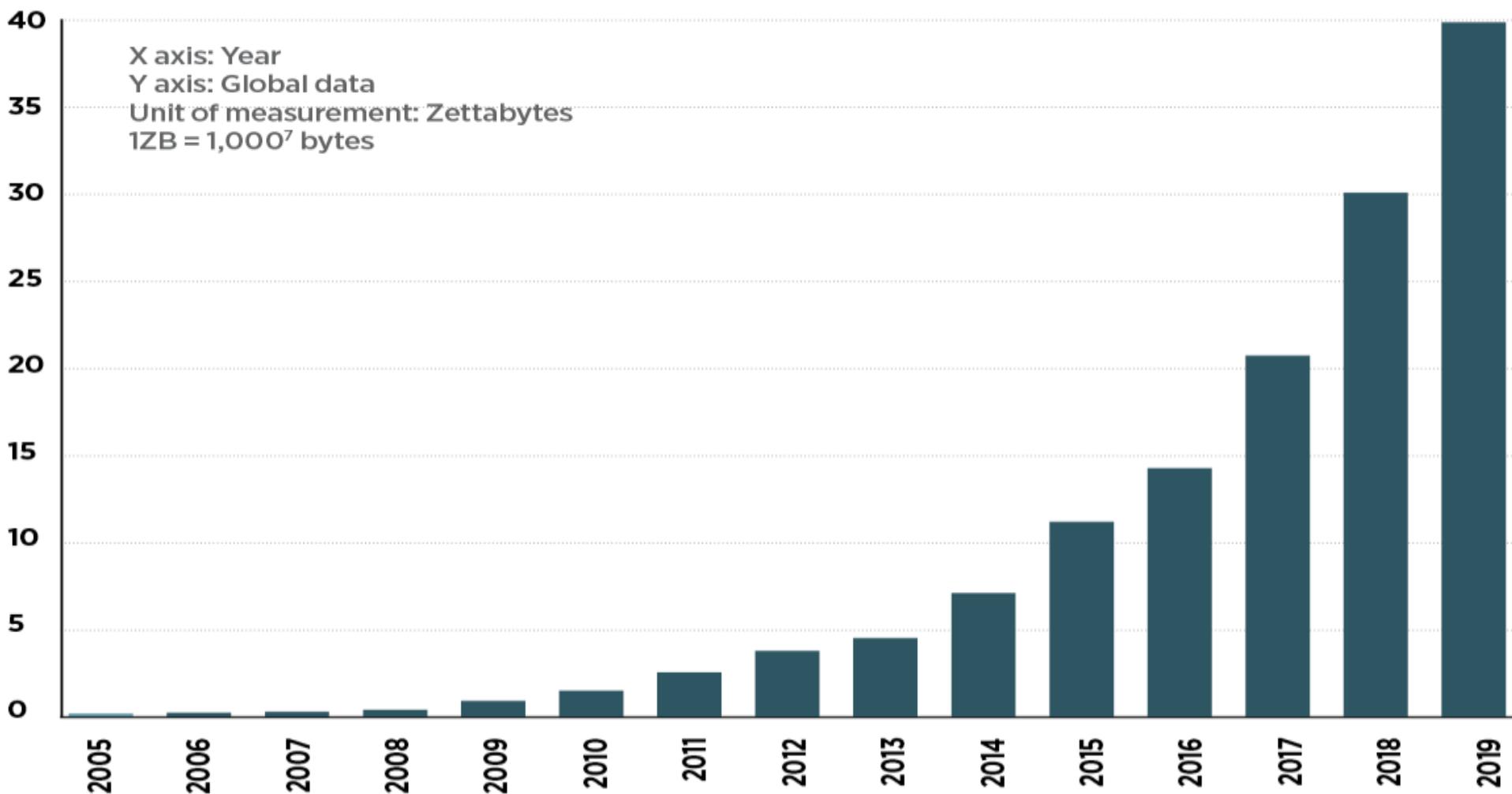
IT staffers

GET IT

Buuuuut...

CAN'T APPLY IT

DATA GROWTH

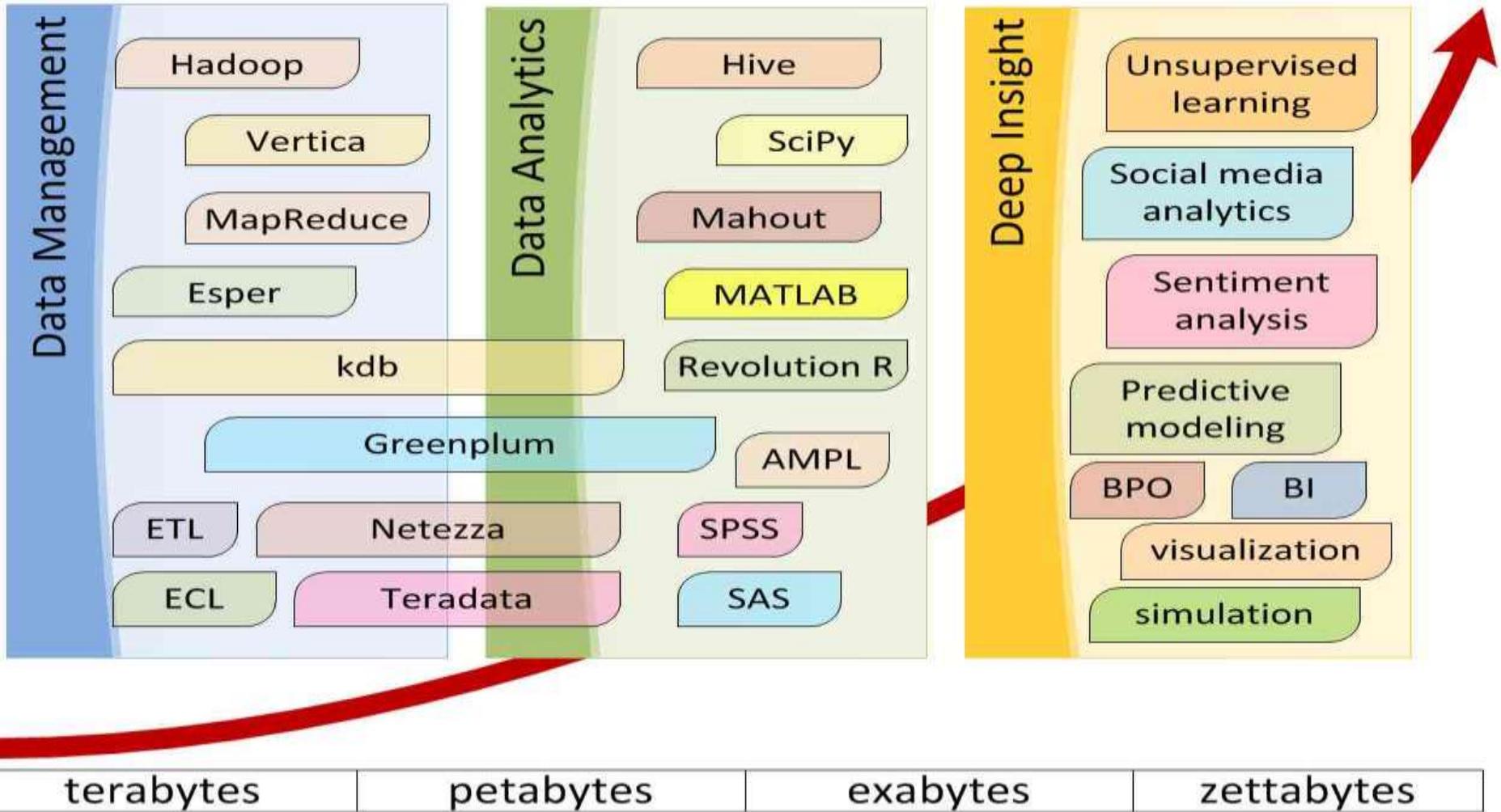


Note: Post-2013 figures are predicted. Source: UNECE

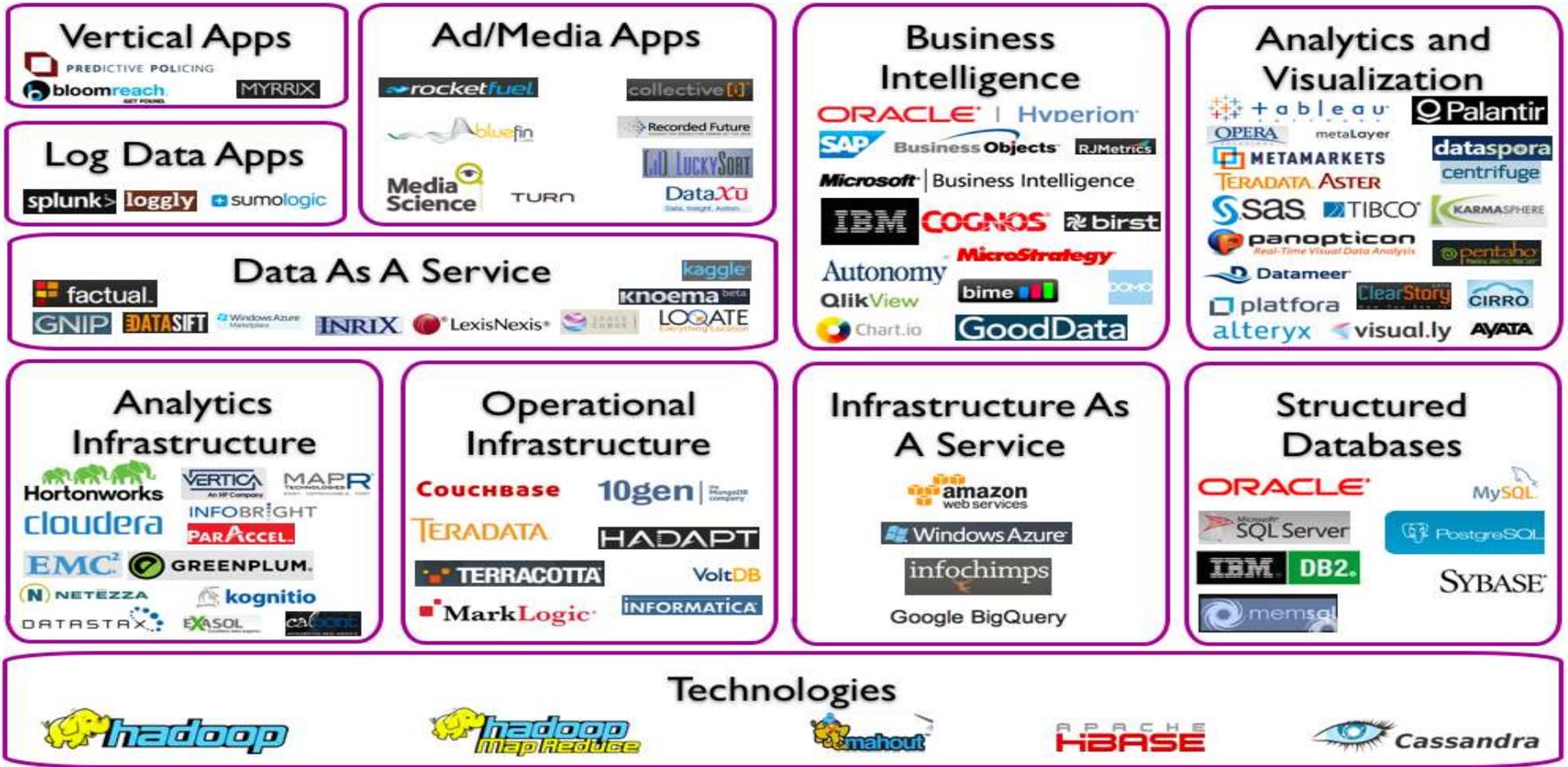
**Everyday business
and consumer life
creates 2.5 quintillion
bytes of data per day.**

90% of data in the world today has been created in the last two years alone.

Big Data



Big Data Landscape



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blogs.forbes.com/davefeinleib



Big Data Landscape (Version 2.0)

Infrastructure

NoSQL Databases
 10gen, DATASTAX, COUCHBASE, HYPERTABLE, Neo4j, CLOUDANT, bosho, Amazon, Microsoft

NewSQL Databases
 MarkLogic, paradigm4, memsql, SQLFire, DRAWINGSSCALE, VoltDB, NUODB

MPP Databases
 VERTICA, Kognitio, PARACCEL, GREENPLUM, TERADATA, Netezza, InfiniDB, SQL Server

Storage
 Cleversafe, panasas, nimblestorage, ANPLDATA, Compuverde

Management / Monitoring
 OUTER THOUGHT, oceansync, StackIQ, bundy, DATADOG

Crowdsourcing
 CROWD COMPUTING SYSTEMS, CrowdFlower, amazon, mechanicalturk

Cluster Services
 LexisNexis, HPCC Systems, Acunu

Security
 Stormpath, IMPERA, TRACEVECTOR, codefortytwo

Collection / Transport
 aspera, nodeable

Cluster Services
 HADOOP, HADAPT, cloudera, HORTONWORKS, MAPR, Zettaset, MORTAR, Microsoft, GREENPLUM, amazon, BOLE, agri

Analytics

Analytics Solutions
 Palantir, platforma, PERVASIVE, Datameer, KARMA SPHERE, DataHive, DIGITAL REASONING, dataspora, PREDDO

Statistical Computing
 SKYTREE, Prior Knowledge, REVOLUTION, MATLAB, SAS, SPSS

Sentiment Analysis
 GENERAL SENTIMENT, crimson hexagon

Location / People / Events
 RapLeaf, Fliptop, Recorded Future, Place IQ, RADIUS

Real-Time
 CONTINUITY, ParStream, feedzai

Crowdsourced Analytics
 DataKind, kaggle

SMB Analytics
 sumall, RJMetrics, custora

Data Visualization
 Quid, visual.ly, ACTUATE, Kitenga, centrifuge, metaLayer, Ayasdi, ClearStory, +tableau, ISS, Quantum4D

Social Media
 bitly, bluefin, simple reach, Dataminr

Analytics Services
 THINK BIG, McKinsey & Company, OPERA, accenture

Big Data Search
 elasticsearch, Autonomy

IT Analytics
 splunk, sumologic

Applications

Ad Optimization
 DataXu, aggregate knowledge, m6d, MediaMath, bluekai, rocketfuel, thetrade desk, TURN, across

Publisher Tools
 VISUAL REVENUE, YIELDDEX, yieldbot

Marketing
 LATTICE ENGINES, Sailthru, SCIENCE, bloomreach, CLICKFOX

Industry Applications
 NEXT BIG SOUND, KNEWTON, nestcash, wonga, numberFire, MileSense, BILLIGUARD, Climate Solutions, Bloomberg

Application Service Providers
 collective

Data Sources
 Data Marketplaces: factual, DataMarket, Windows Azure Marketplace
 Data Sources: premise, DATA SIFT, knoema, Gnip, infochimps

Withings, Personal Data
 LAWBONE, RunKeeper, BASIS, fitbit

Cross Infrastructure / Analytics

SAP, sas, IBM, Google, ORACLE, Microsoft, vmware, amazon, 1010data, METAMARKETS, TERADATA, Autonomy, NetApp

Open Source Projects

Framework
 Hadoop, HDFS

Query / Data Flow
 Hive, Pig

Data Access
 Cassandra, SciDB, HBASE, CouchDB, Sqoop, mongoDB

Coordination / Workflow
 ZooKeeper, talend

Real-Time
 Storm

Statistical Tools
 SciPy

Machine Learning
 Mahout

Cloud Deployment
 AWS, Azure, GCP

© Matt Turck (@mattturck) and ShivonZilis (@shivonz) Bloomberg Ventures

In short...

WE'RE SCREWED

OR ARE WE?

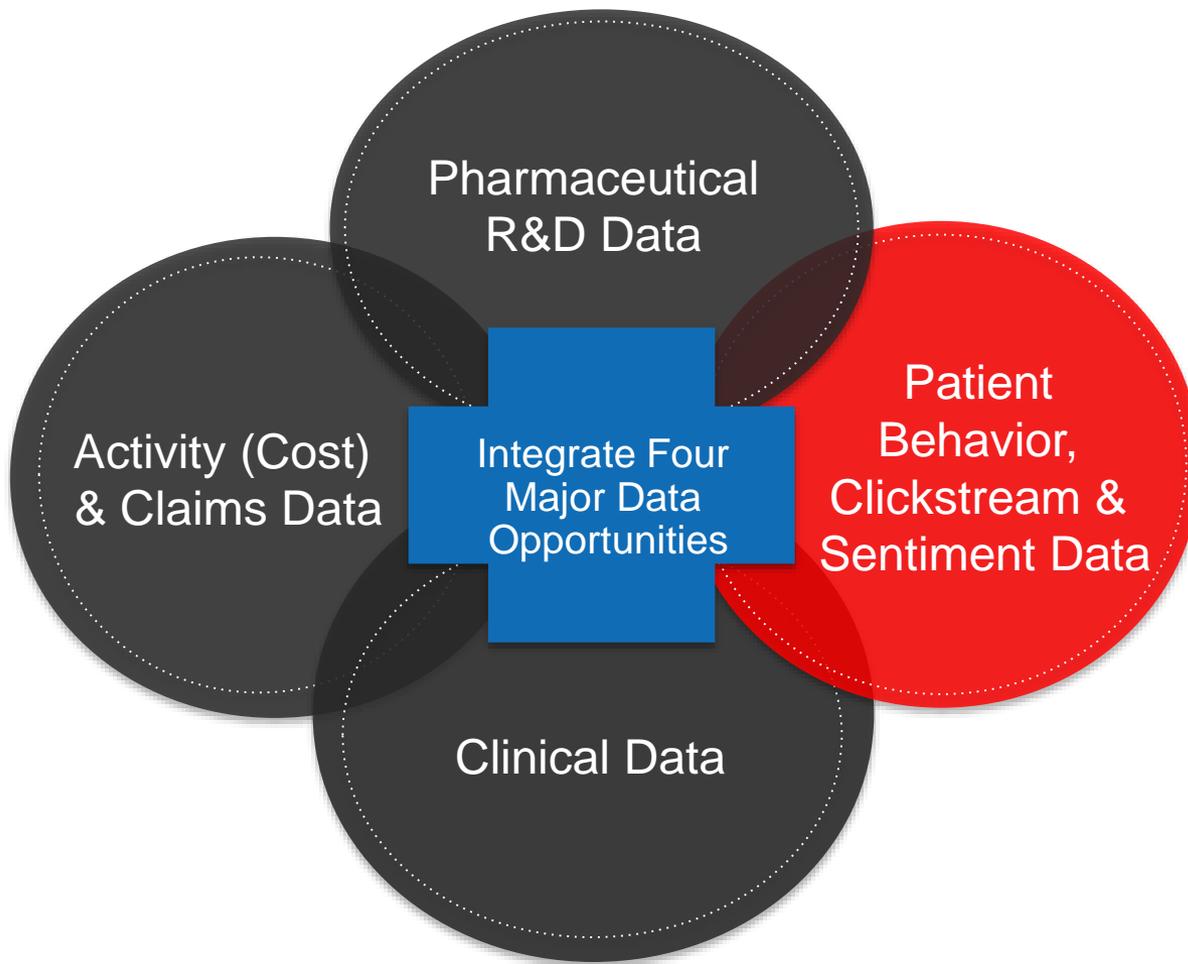
SEE, I TOLD YOU
THAT BIG DATA
WAS TOO SCARY

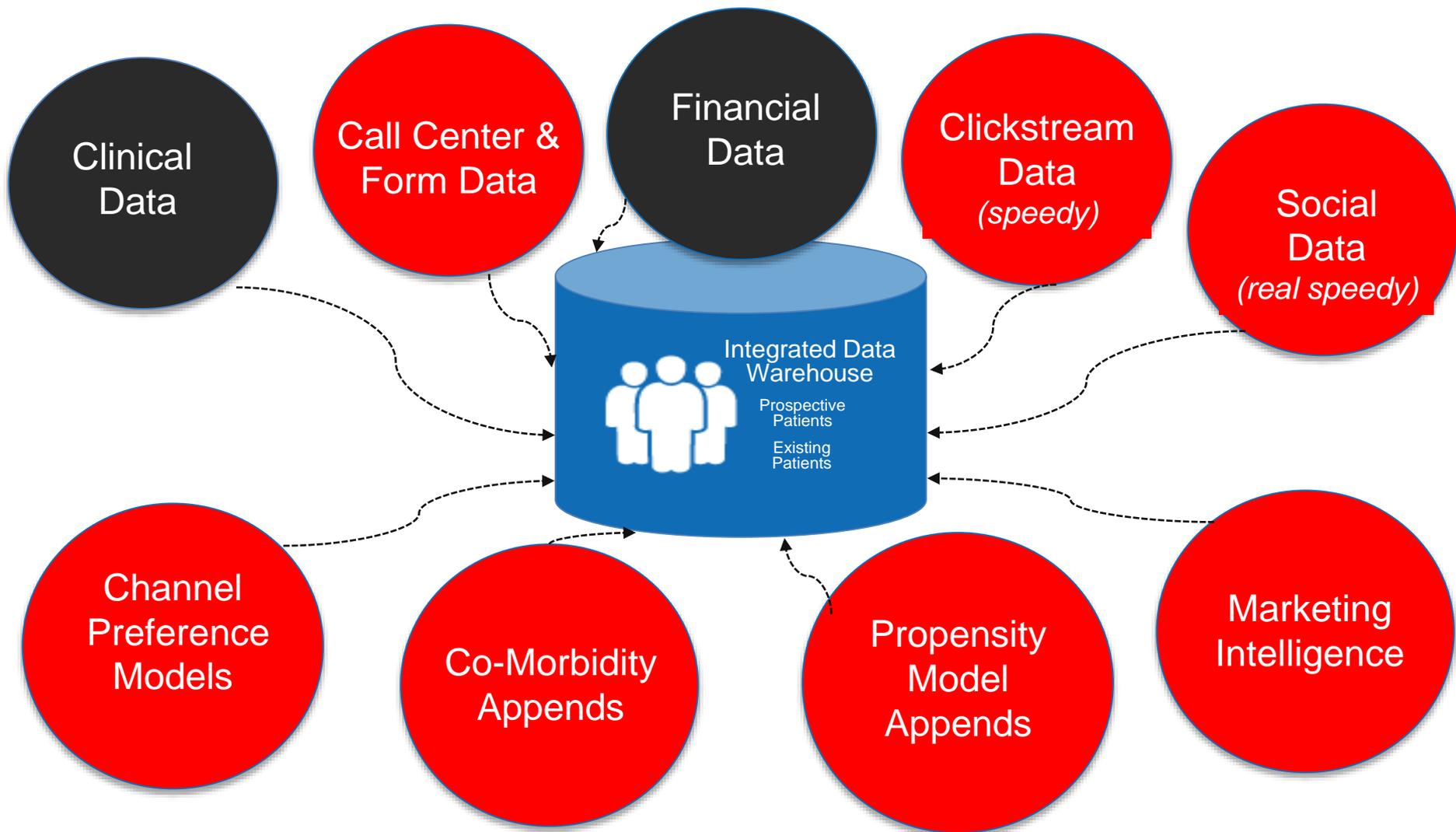


All of the
information

Information
you
need!







SO WHAT'S THE PROBLEM?

Well, it's not a lack of patient

EXPERIENCE DATA

It's a lack of patient

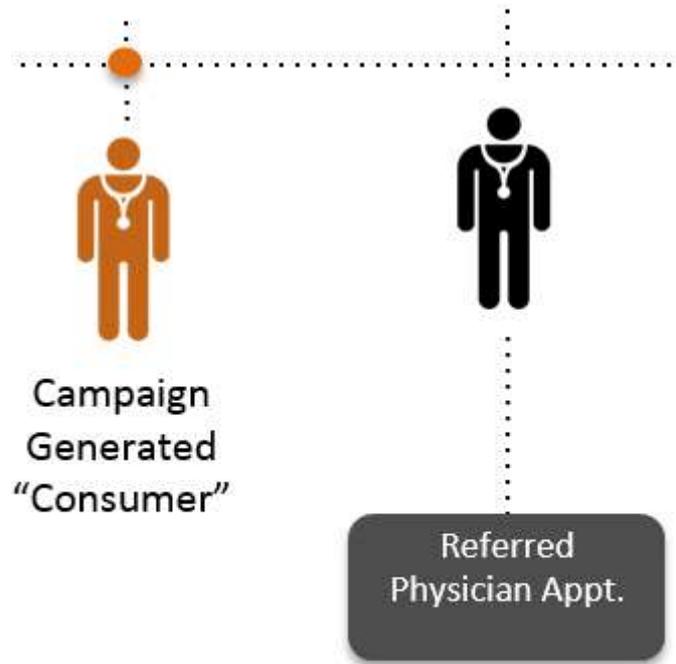
PANORAMA DATA











Patient/Provider Panoramas: Drives a Unified Patient/Consumer Experience



Longitudinal Patient/Provider Panorama - 12 Mo. View

MARKETING PERIOD



Campaign
Generated
"Consumer"



Referred
Physician
Appt.

Conversion Event



Medical
Cardiologist
"Receiving
Physician"



Clinical-based
Patient
Communications



CV
Surgeon



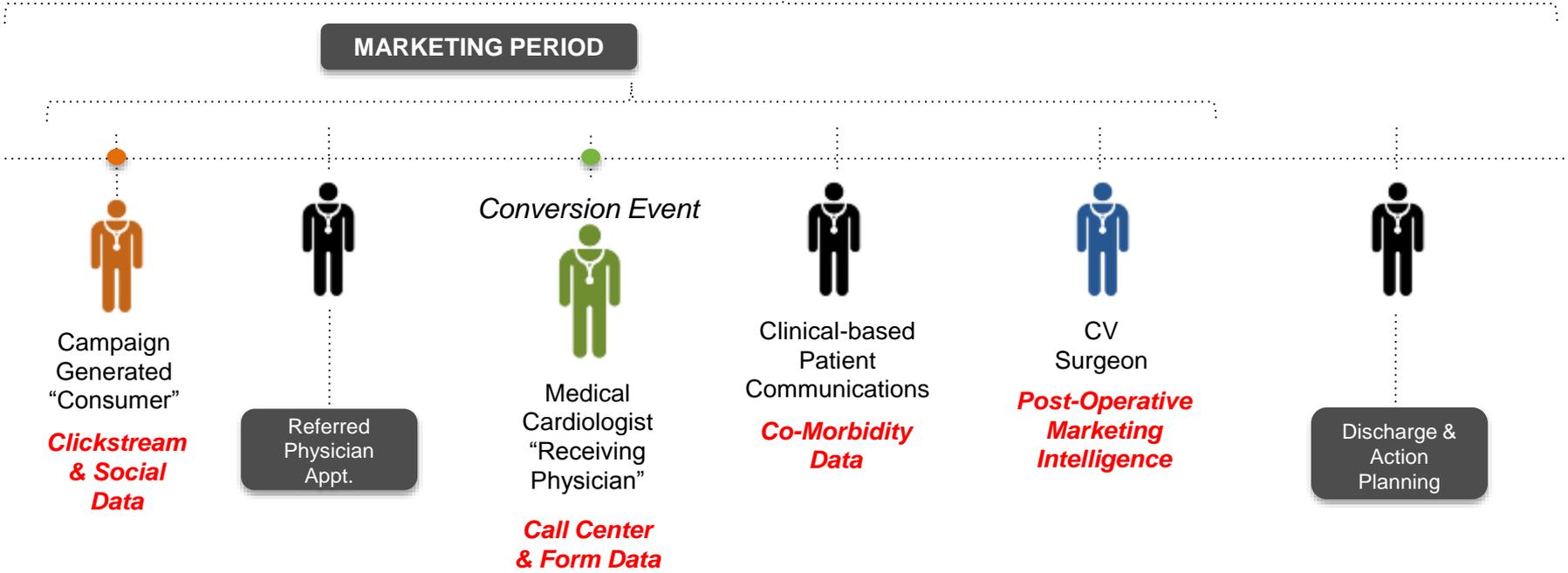
Discharge &
Action
Planning

Patient/Provider Panoramas: Drives a Unified Patient/Consumer Experience



Longitudinal Patient/Provider Panorama - 12 Mo. View

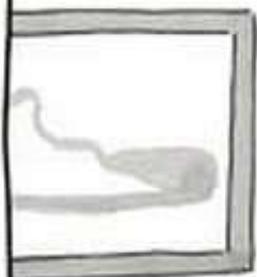
MARKETING PERIOD



Campaign Growth Based on Data

	Phase I October 2011 – January 2012	Phase II June – August 2012	Phase III January – May 2013	Phase IV <i>(spurt)</i> October – November 2013	Phase V April – June 2014
Landing page visits	3,935	6,742	14,385	3,221	3,098
Respondents per week (total)	6.75 (81)	14.8 (148)	19 (361)	25.8 (129)	28 est. (300)
Cost Per Acquisition Respondents	\$370	\$270	\$200	\$182	\$121 est.

LET'S SOLVE THIS PROBLEM BY
USING THE BIG DATA NONE
OF US HAVE THE SLIGHTEST
IDEA WHAT TO DO WITH



TOM
FISH
BURNE

Big Data is evil due to

VOLUME
VELOCITY
VARIETY

And this scares the (you know what) out of

HEALTH MARKETERS

They feel that data

CONTROLS THEM

They feel that data is

NOT PRACTICAL

They need

COURAGE

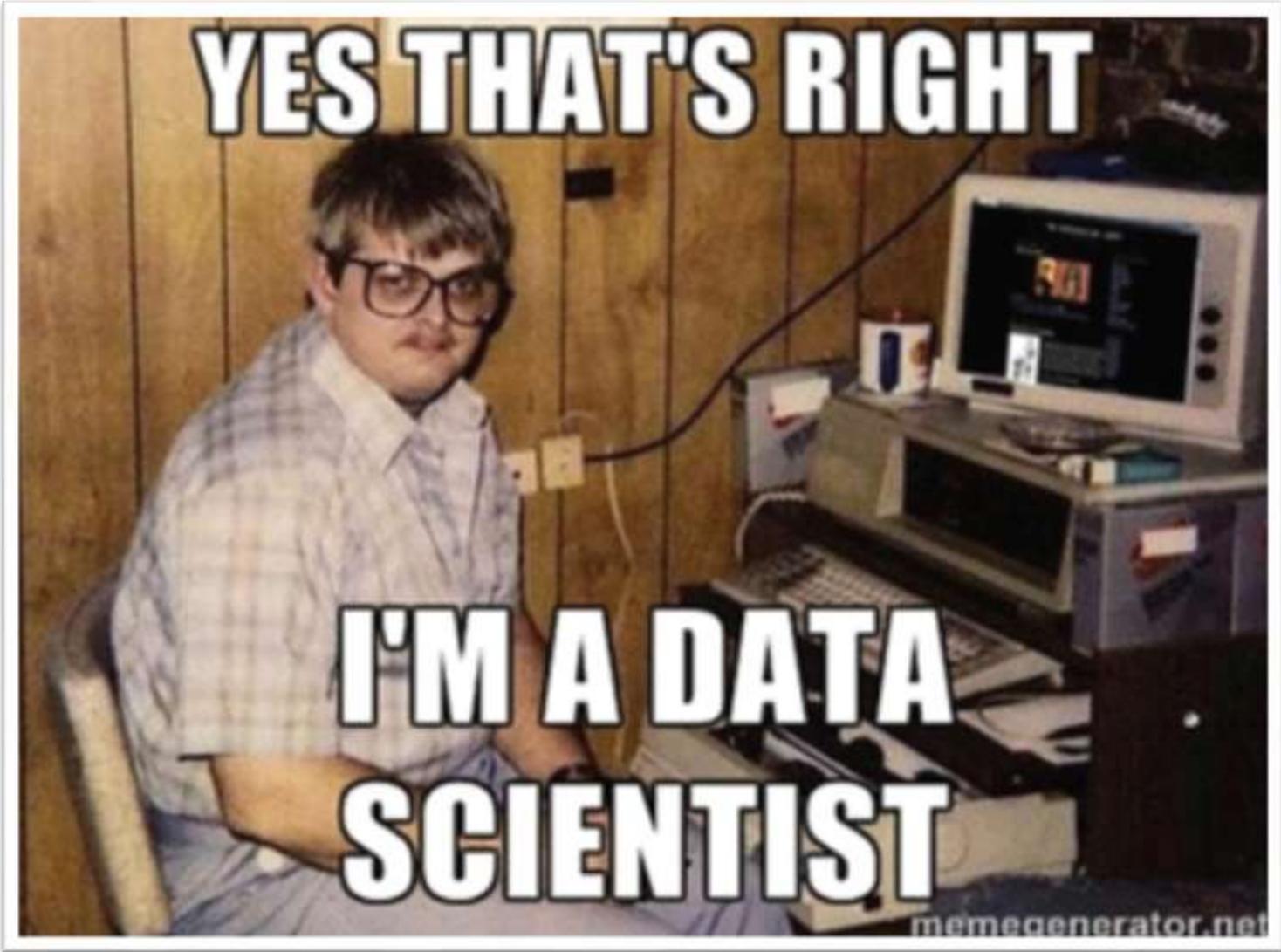
They need

CONFIDENCE

They need
A HERO



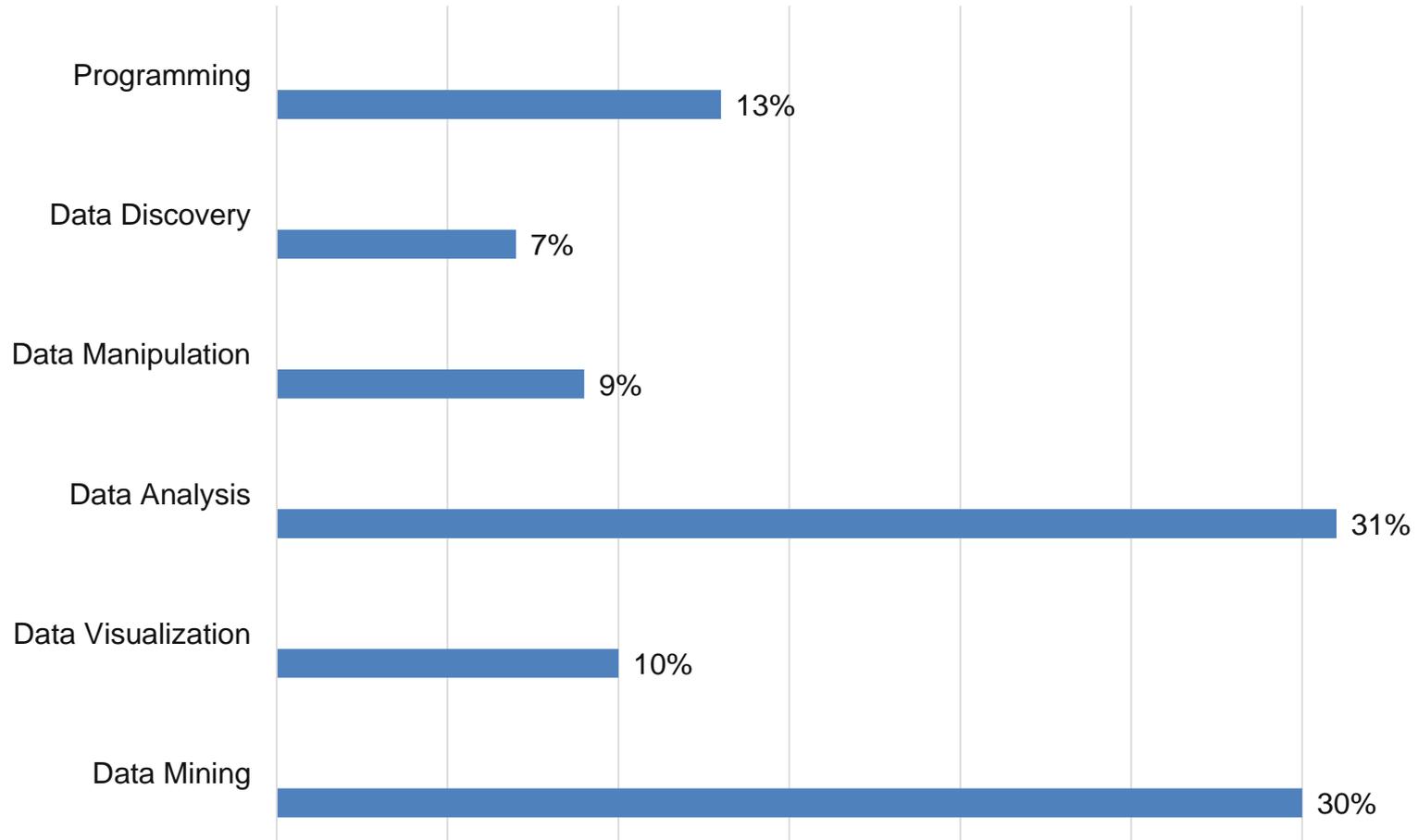




Jonah Hill



The skill most important to big data is:



Healthcare marketing used to be

STRATEGY

BRAND

CREATIVE

Now it's

**DATA
INSIGHTS
STRATEGY**

Data is the

NEW CREATIVE

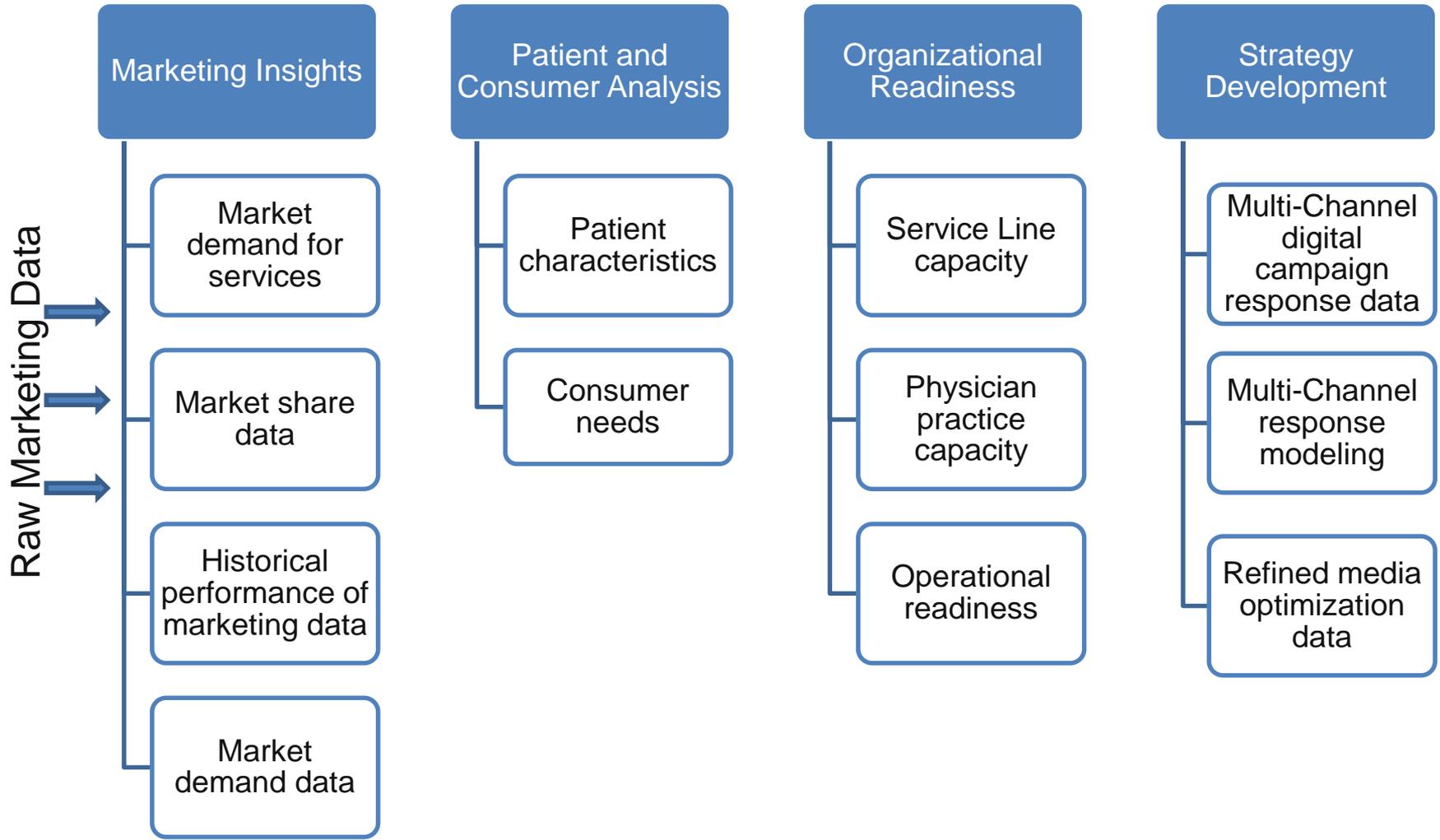
And so we come

FULL CIRCLE

How does Big Data become

PRACTICAL DATA

Data Driven Marketing Roadmap



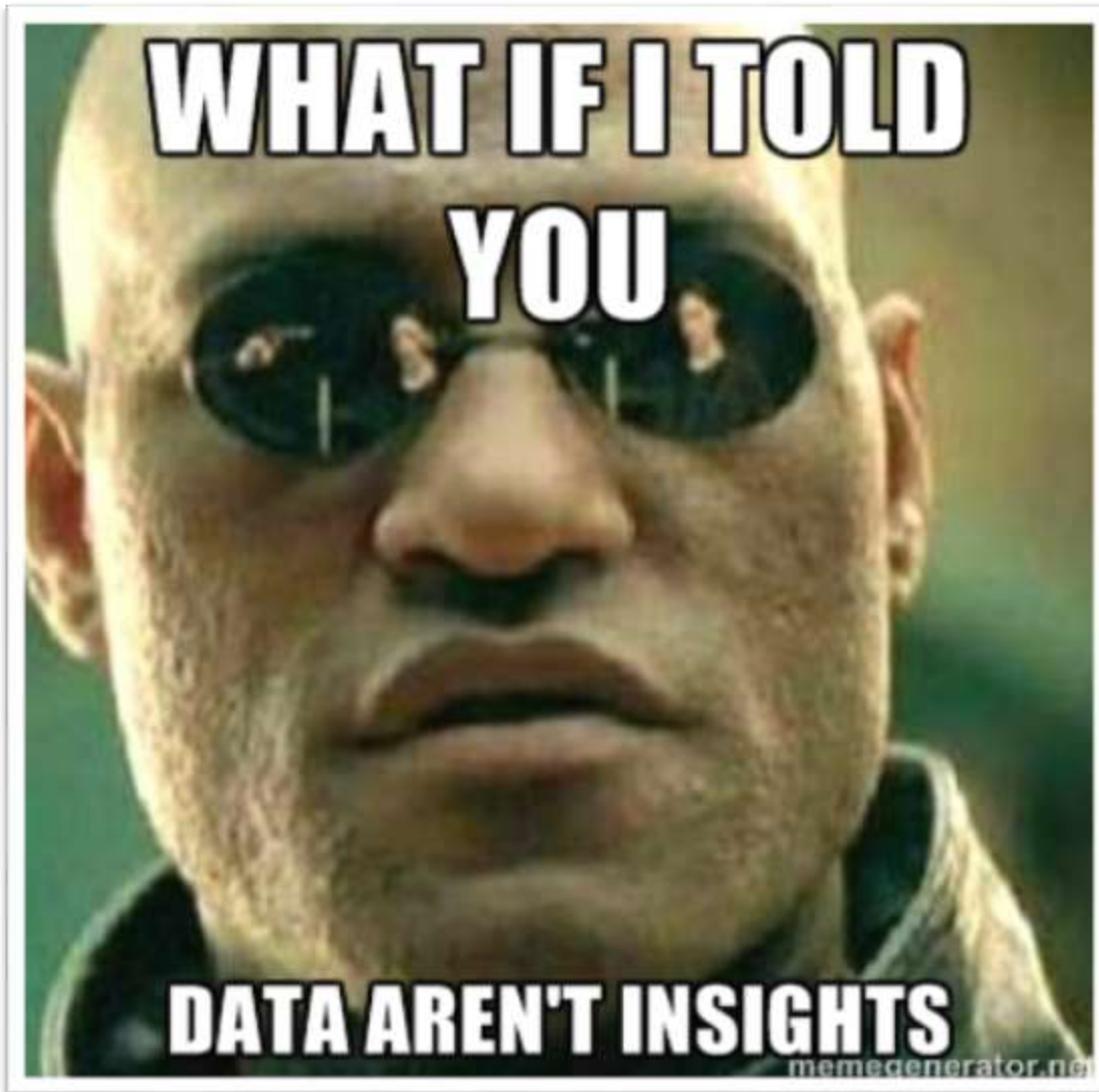
Service Line	Web Leads	Call Leads	Total Leads
Proton	44	97	141
GI	8	3	12
Lung	4	1	5
Prostate	6	19	25

Tactic	Web Leads	Call Leads	Total Leads
Google	54	29.66	83.66
Bing	5	0	5
Display	0	18	1

GI	% of click	% of Imps
Liver	43%	60%
Colon	27%	18%
Pancreas	13%	9%
Stomach	6%	2%

Day	Web Leads	Call leads
Sunday	12	4
Monday	9	33
Tuesday	9	22
Wednesday	12	21
Thursday	15	30
Friday	15	18
Saturday	12	2

Head & Neck	% of click	% of Imps
Thyroid	29%	16%
Tongue	14%	6%
Mouth	12%	26%
Oral	11%	23%
Lip	8%	4%



Jonah Hill



First Party - Data Sources

- › Google Search Query Report
- › Bing Search Query Report
- › Campaign reports
 - Day of week report
 - Time of day report
- › Keyword Reports
 - Day of week report
 - Time of day report
- › Contact Center Call Logs
- › Audience Profile Reports
- › Platform reporting
 - Campaign Tactics
 - Inquiry Reports
 - Patient Reports

Example Insights

- › 2 branded keyword-based leads, 10 Location keyword-based leads
- › GI (9), Prostate (8) and Head & Neck (7) share similar web leads numbers
 - Lung is the laggard, with 4 web leads, 1 call lead
- › Prostate produces more phone leads than web leads
- › Primarily a Desktop Market – 60% desktops
 - Mobile usage does increase throughout the day, heaviest in evening
- › Clicks/Traffic is consistent throughout week, small drop off on weekend
 - Conversions dip in the beginning of the week, are strong Wednesday – Sunday
- › GI Audience is trending primarily towards Liver

Example Insights

- › IPad/iPhone users are dominating mobile traffic
 - IPad users most engaged – 1.73 pages/visit, 70% bounce rate
- › 85% new visitors
- › Proton google ad phone number producing the most calls in region
- › All audiences are well educated on Proton Therapy
- › Request appointment CTA is resonating best with callers (prostate)
 - Very few “what is...” searches
- › Top three “other cancers” searches
 - Lymphoma (10% of search traffic)
 - Also has seen some call lead volume
 - Brain (2% of search traffic)
 - Lymphoma (10% of search traffic)
 - Bone/Women’s Cancer (1% of search traffic)

Example Insights

Web Lead types	Call Lead Types	Device Type	Top Web Days	Top Call Days
<ul style="list-style-type: none"> • 2 branded • 10 location • 9 GI • 8 Prostate • 7 Head & Neck • 4 Lung 	<ul style="list-style-type: none"> • 97 Proton • 3 GI • 1 Lung • 19 Prostate • 4 Head & Neck 	<ul style="list-style-type: none"> • 66% Desktop • 13% Tablet • 21% Mobile 	<ul style="list-style-type: none"> • Weds • Thursday • Friday • Saturday • Sunday 	<ul style="list-style-type: none"> • Monday • Tuesday • Weds • Thursday • Friday
Top 5 Keywords		Top Search Queries		
<ul style="list-style-type: none"> • XXXXX +Proton Therapy • +Proton therapy • Tumor +prostate • +cancer thyroid • +proton Radiation 		<ul style="list-style-type: none"> • Prostate Cancer • Thyroid Cancer • Stages of Prostate Cancer • What is Lymphoma • Lymphoma cancer • Brain cancer 		
Top Geos (outside Market)		Top Geos (within Market)		
<ul style="list-style-type: none"> • XXXX (calls & web) • XXXX (calls & web) • XXXX (web) 		<ul style="list-style-type: none"> • XXX (calls & web) • XXXX (calls) • XXXX (calls) • XXXX (web) 		

YOU CAN HAVE A SEAT AT THE TABLE
AS SOON AS YOU CAN BACK UP YOUR
MARKETING IDEAS WITH DATA.



TOM
FISH
BURNE

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evariant[®]
MOVING HEALTHCARE AHEAD™

Example Strategy

- › **Consider a broader national reach into Example and Example. Outside of Example, most calls are coming from these 2 states.**
 - Could include personalized ad content and placement around top geos, drawing attention to Example as a top destination.
 - Has potential to be a strong test in advance of larger Phase 2 budget and tactic mix.

- › **Data indicates that head & neck audience does more research and consumes more tactics “lingering” longer in campaign.**
 - Head & Neck prospects may require a separate nurturing program. Isolate prospects and partition into parallel efforts.

- › **Analysis shows that prostate prospects are NOT lingering. Appointment request is the clear winner with these prospects.**
 - Suggest campaign context (web pages, materials) upgrade with more “urgent” tone specifically around prostate.
 - Similar with SEM content as most searches are not “what is...” caliber searches noting that prospects are highly directional and know what they want to see.

Example Strategy

- › **Data indicates that clinical diagnosis specific context is wasted in Example as traffic “outside” of Proton is very weak.**
 - Suggest stronger focus on Proton as a technology and less clinical targeting.
 - Could mean a new talk track for Example in phase 2 as we have yet to see strong modality specific response.
- › **Analysis shows that the Example audience demonstrates a lack of education around oncology as a whole as there are few “extra” searches.**
 - Lack of education and limited extended search indicates an audience that is unsatisfied with campaign message.
 - Data suggests that Example may require a simpler and alternate communication strategy than other geos.

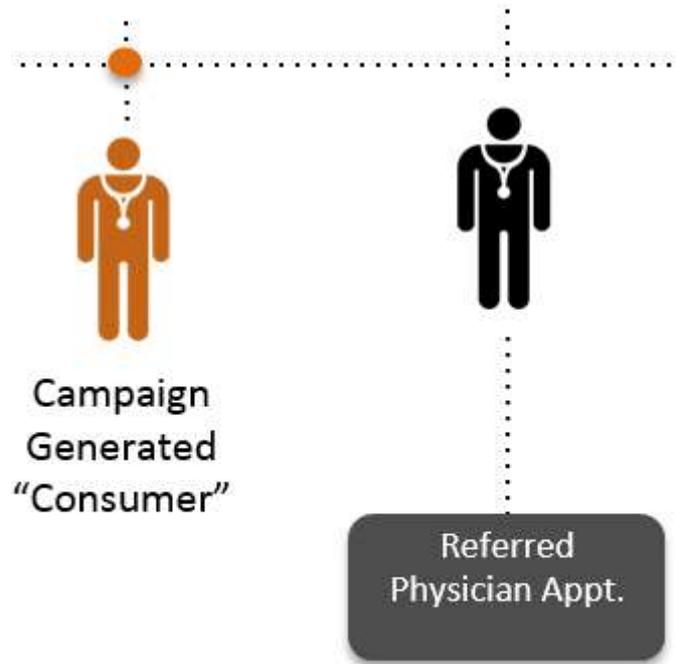
Example Strategy

- › **Example is proving to be our strongest display market so far as data shows a high propensity for display influence on phone calls. Example is our “stumble-upon” market.**
 - Analysis indicates a possible heightened awareness and visibility of the 800# just for Example.
 - Suggest earlier showcasing of 800# in ads and higher visibility in landing pages and email follow-ups.
 - May also consider faster and more frequent follow-up procedures for Example call-ins in preparation for possible Phase 2 lead increase.

- › **Search traffic is proving to be very light in Example as data indicates a weaker desire to “seek out” cancer research.**
 - Search can be heavily influenced by other forms of media; in particular offline media (radio, etc.)
 - Suggest controlled test of offline to online conversion (isolated media pathway) to determine if search budgets have normalized or still have a major play in this market.



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Patient/Provider Panoramas: Drives a Unified Patient/Consumer Experience



Longitudinal Patient/Provider Panorama - 12 Mo. View

MARKETING PERIOD



Campaign
Generated
"Consumer"
*I prefer
display ads*



Referred
Physician
Appt.

Conversion Event



Medical
Cardiologist
"Receiving
Physician"
*I usually
call on
Tuesday*



Clinical-based
Patient
Communications
*I am obese and
also have heart
problems*



CV
Surgeon
*You maintain
my
health by
keeping my diet
in check*



Discharge &
Action
Planning



Jonah Hill



Today's Presenter

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Contact Us Today