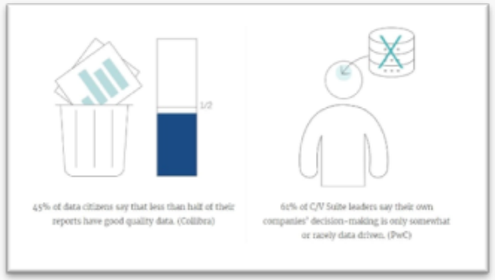
2018 Top 10 Business Intelligence Trends Overview

Top 10 Trends in Business Intelligence for 2012

2018 Top 10

Business Intelligence Trends

1 Don't Fear AI



4 The Debate for Multi-Cloud

How hot is this trend?

Share your thoughts and vote on the right for how hot you think the Chief Data Officer will be in 2018

FREEZING | COLD | LUKEWARM | TOASTY | HOT

https://www.tableau.com/reports/business-intelligence-trends

1.
Don’t Fear Artificial Intelligence

2.
Liberal Arts Impact

3.
Promise of NLP

4.
Multi-Cloud Debate

5.
Rise of the Chief Data Officer

6.
Crowdsourced Governance

7.
Data Insurance

8.
Data Engineer Role

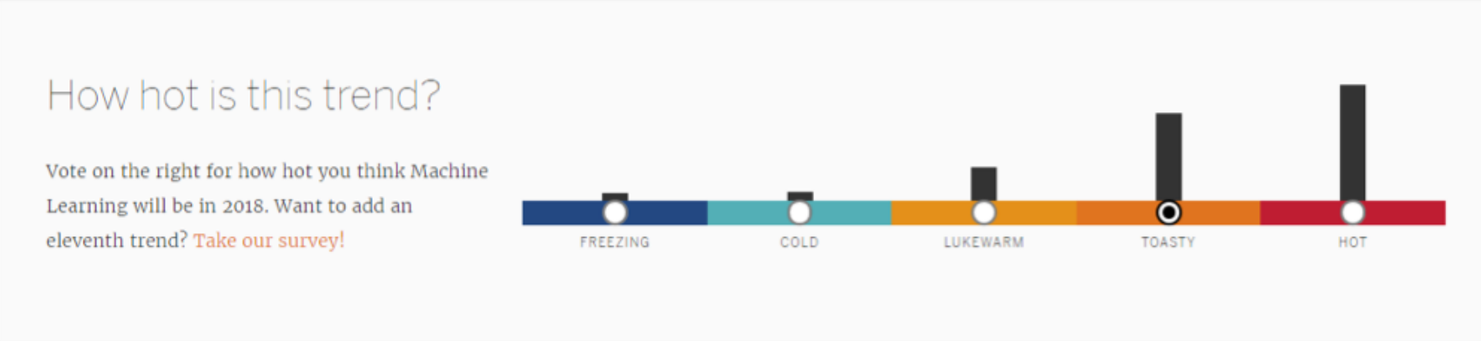
9.
Location Internet of Things

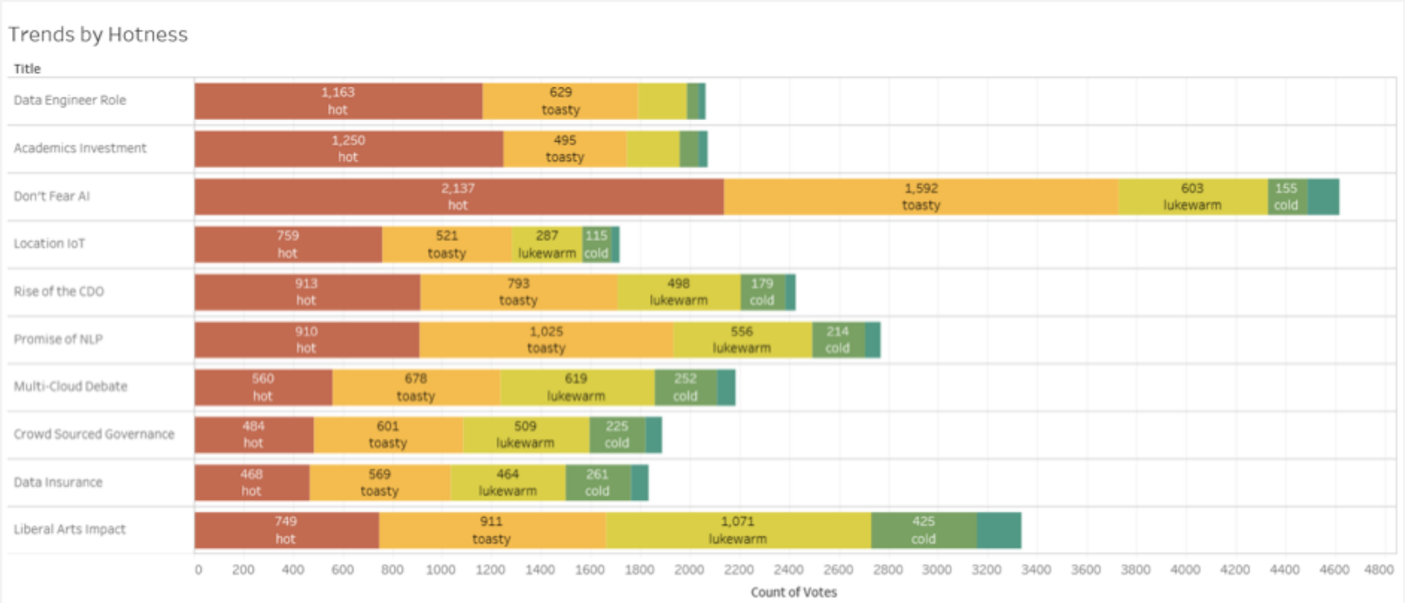
10.
Academics Investment

A New Top 10 list – Community Curated

We wanted to get feedback from our community so we built in interactive surveys to understand "How hot" a trend is.

Taking that feedback, we re-organized our list to a new Top 10 today and will countdown starting with 10.





Moderator & Speakers

Andrew Grinaker
Sr. Integrated Marketing Manger

Moderator

Francois Ajenstat
Chief Product Officer

Josh Parenteau
Market Intelligence Director

Andy Cotgreave
Technical Evangelism Director

Francois Ajenstat

As chief product officer of development, Francois is responsible for product strategy and product planning. He combines customer and partner feedback to set the strategic vision and leads the execution of new features and products.

Prior to joining Tableau, Francois worked at Microsoft for 10 years in a number of different groups including SQL Server, Office, and Trustworthy Computing. Prior to joining Microsoft, Francois worked for Cognos Corporation (acquired by IBM) leading strategic alliances with key industry partners such as IBM, HP, and Microsoft.

Josh Parenteau

With over 20 years of experience in the BI and Analytics industry, Josh Joined Tableau in June 2016 to focus on competitive intelligence and now leads Tableau's Market Intelligence efforts.

Prior to coming to Tableau, Josh worked for 3 years as a Research Director/Industry Analyst covering the BI & Analytics market for Gartner where he played a key role in producing the Magic Quadrant and helped lead the transition to Modern BI.

Before Gartner Josh worked in various business and IT roles primarily in the healthcare payer market at Anthem/Wellpoint and also in financial services at WEX.

Andy Cotgreave

Andy is a visual analytics expert who has been with Tableau since 2011 in various roles ranging from product consultant to social content manager. He is now Tableau's technical evangelism director. Prior to Tableau, he was a data analyst at the University of Oxford.

As a technical evangelist, Andy helps people see and understand their data using Tableau's innovative products. He shares his passion for visual analysis and technology with his writing, (e.g. Computerworld, on tableau.com, and his own blog), speaking at industry conferences like SXSW and Tableau’s own events.

CALL FOR QUESTIONS

2018 Business Intelligence Trends

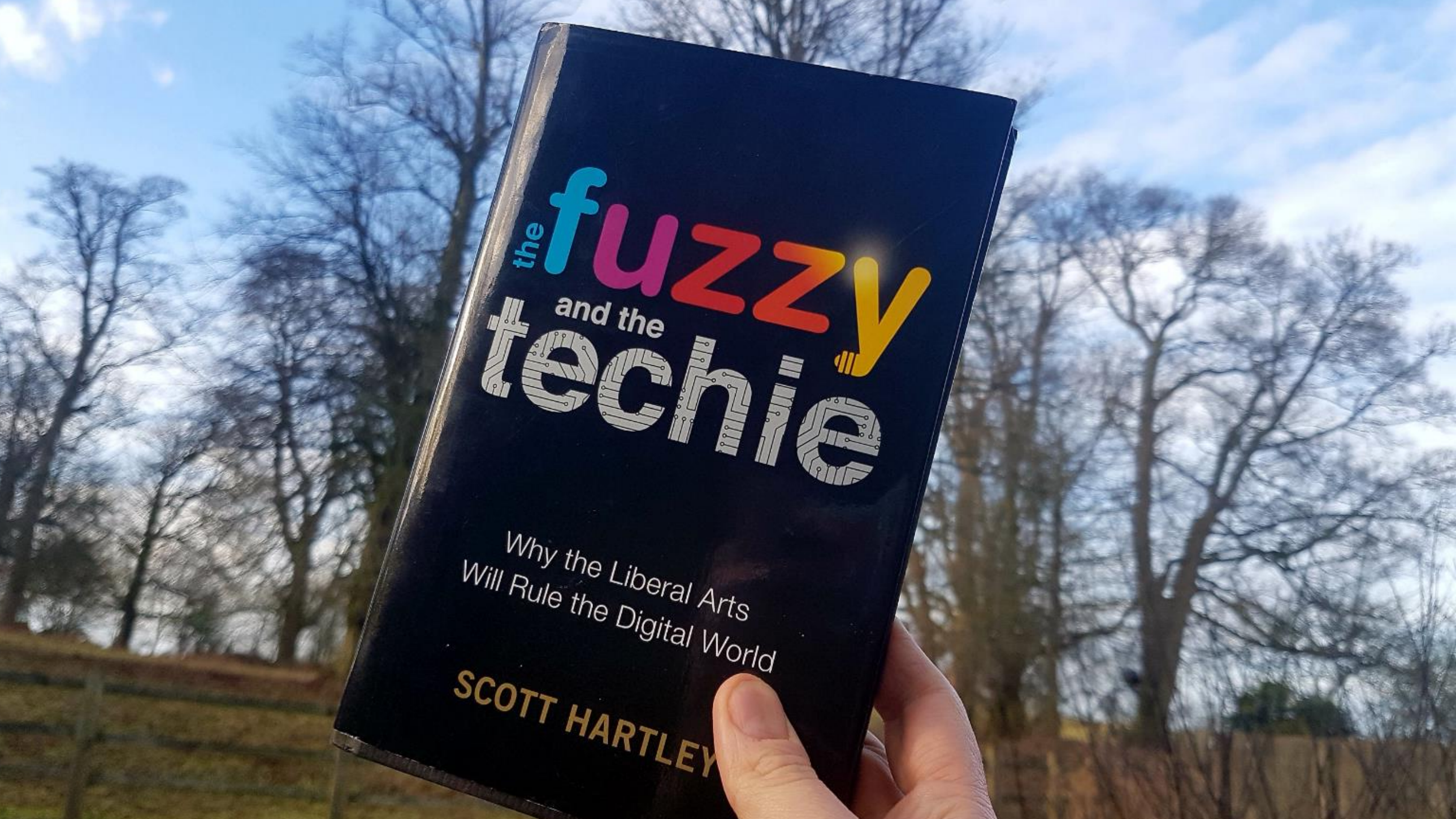
Countdown based on Community Feedback

10

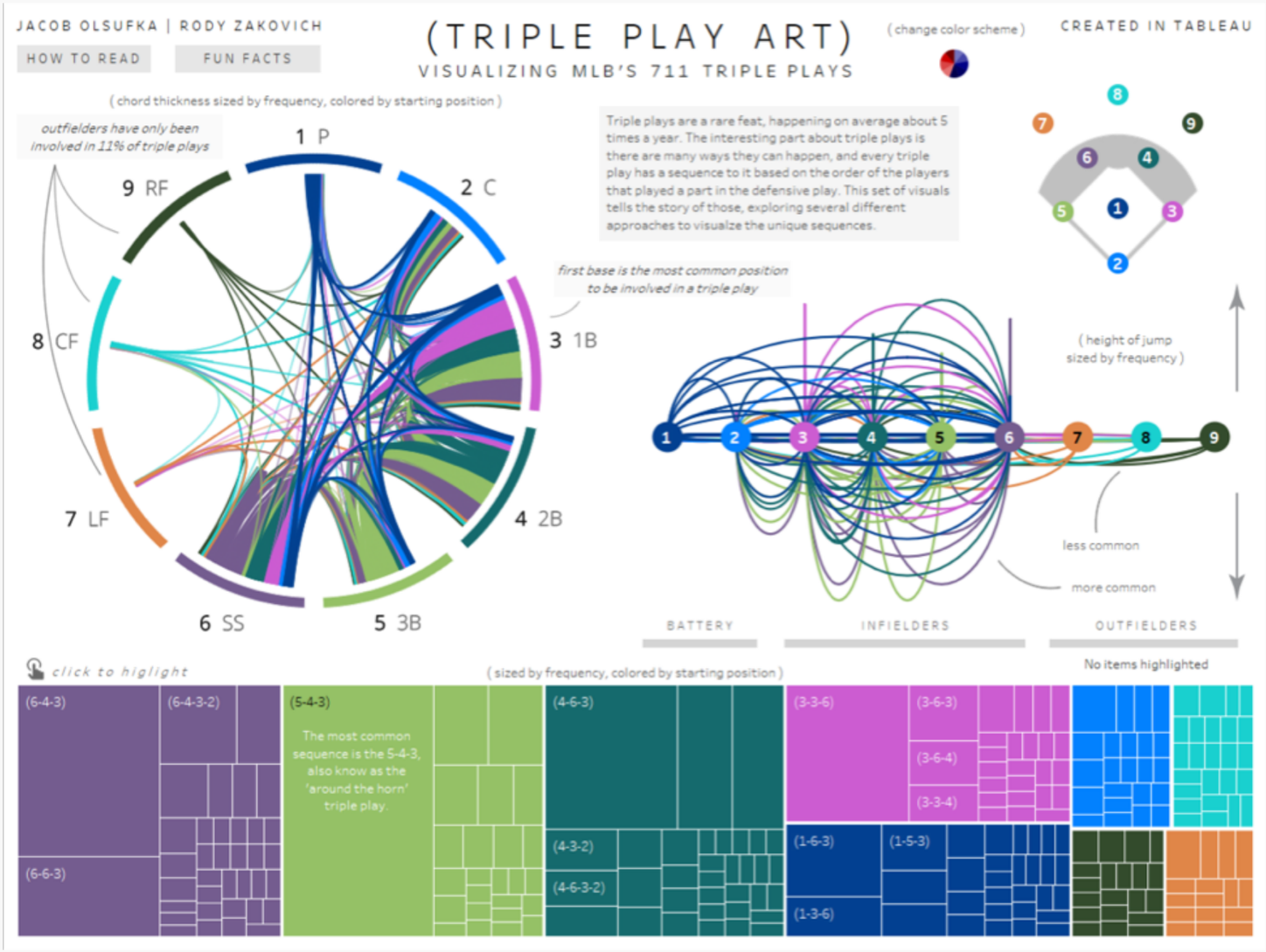
Liberal Arts Impact

“It takes a certain amount of skill to build a dashboard and to do analysis, but there's something that isn't really something you can teach—and that's really about the way you tell a story with the data.”

Jenny Richards, Data Artist

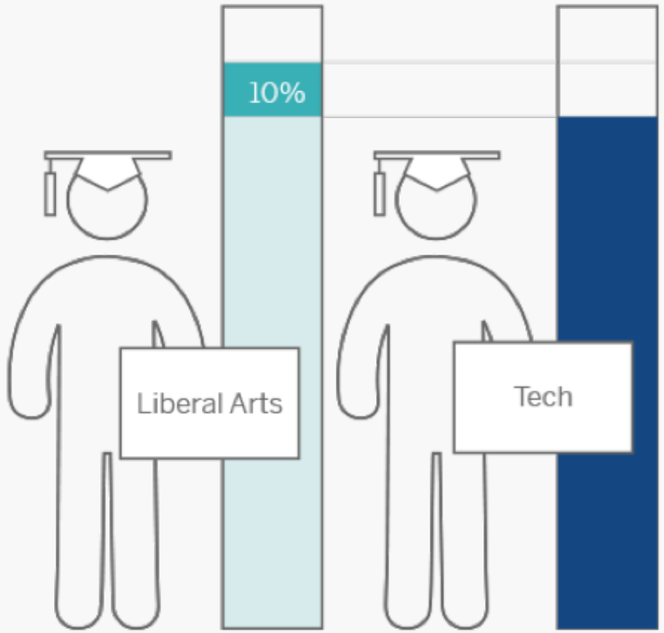

the fuzzy and the techie
Why the Liberal Arts Will Rule the Digital World
SCOTT HARTLEY

Art vs. Science Debate in Analytics

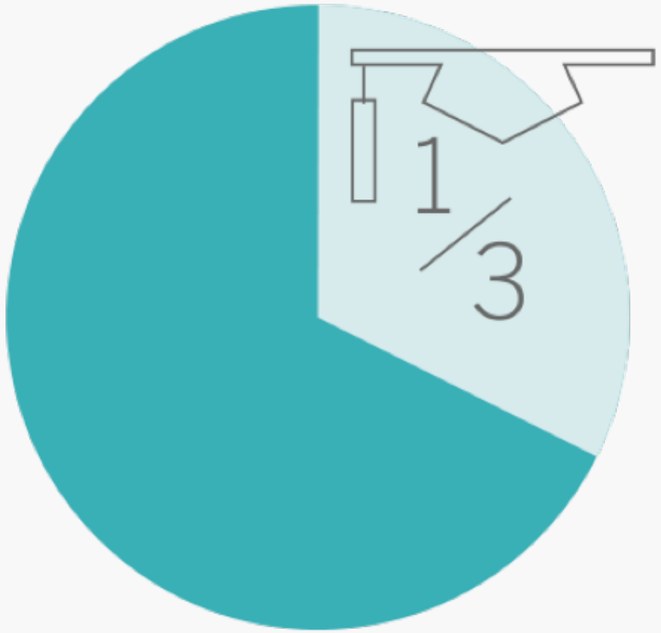


Liberal Arts Coming to the Analytics Industry

Liberal arts grads are joining the tech workforce 10% more rapidly than technical grads. (LinkedIn)



One third of all Fortune 500 CEOs have liberal arts degrees. (Fast Company)



In Depth: Impact of Liberal Arts + Analytics

As analytics evolve to be more art and less science, the focus has shifted from simply delivering the data to crafting data-driven stories that inevitably lead to decisions.

Tell Me a Story

- Users who understand the art of storytelling – a skill set primarily coming from the liberal arts – are taking over and creating analytical dashboards.

Data For Everyone

- Companies will soon realize that empowering their workforce to embrace data is a competitive advantage.

Discussion Questions

Liberal Arts Impact

- Analytics has predominantly been a technical field. Why are we seeing an increase in liberal arts graduates in business intelligence and more broadly in technical fields?

- Do you agree with this statement? Analytics is evolving to be more art and less sciences? Why?

UPCOMING WEBINAR: “The Liberal Arts Impact on Analytics” – Feb. 8th – 10am (PST)

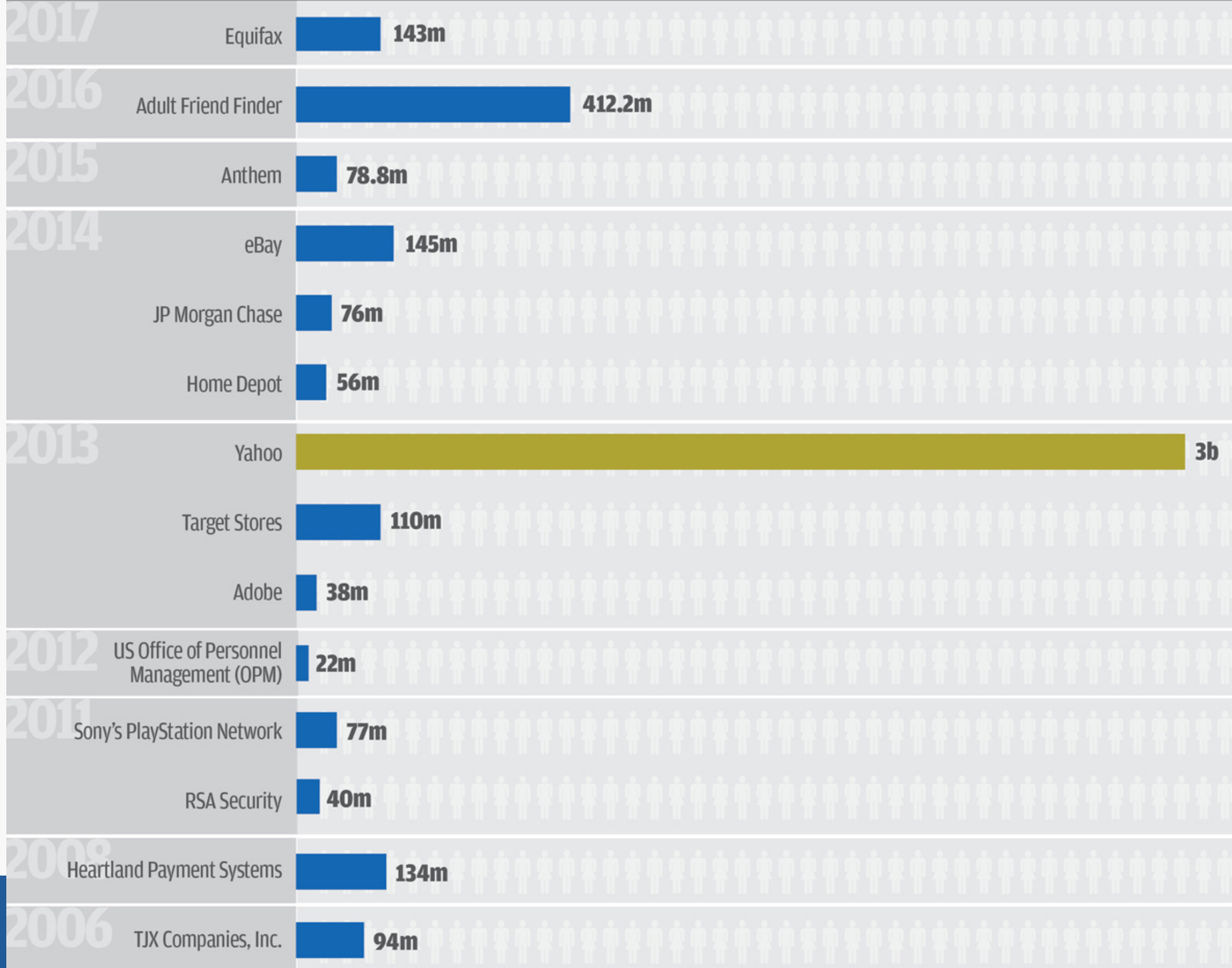
9.

Data Insurance

“You have to decide where the pain point is. What is the real risk to your business?”

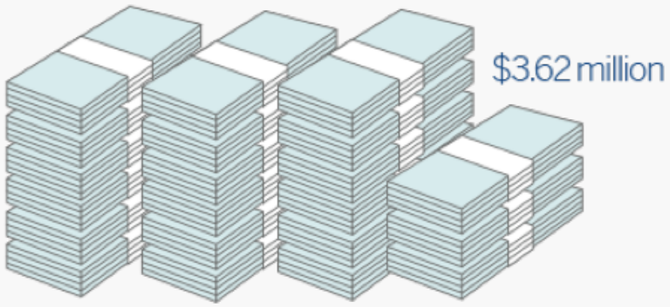
Peter Cregger, Chief Data Officer

Biggest data breaches



Insuring a Critical Business Asset: Data

The average total cost of a data breach was estimated at $3.62 million. (Ponemon)



Only 15% of US companies have an insurance policy specifically for their data. (Ponemon)

In Depth: Data Insurance

Doug Laney, Gartner Analyst and Author, explains how companies across all industries can review the value of their data, both in non-financial and financial models.

Non-Financial Models

- Non-financial models focus on the intrinsic value, the business value, and the performance value of the data.
- It measures a company's uniqueness, accuracy, relevancy, internal efficiencies and overall impact.

Financial Models

- Financial models focus on the cost value, the economic value, and the market value of the data.
- It measures the cost of acquiring data, administering the data internally, and the value of selling or licensing your data.

Discussion Questions

Data Insurance

- How serious is this? What should companies be doing to prepare for it?
- To reference our “in-depth” slide, how should companies continue to evaluate their data and the risk associated? What attributes should companies be thinking about?

8.

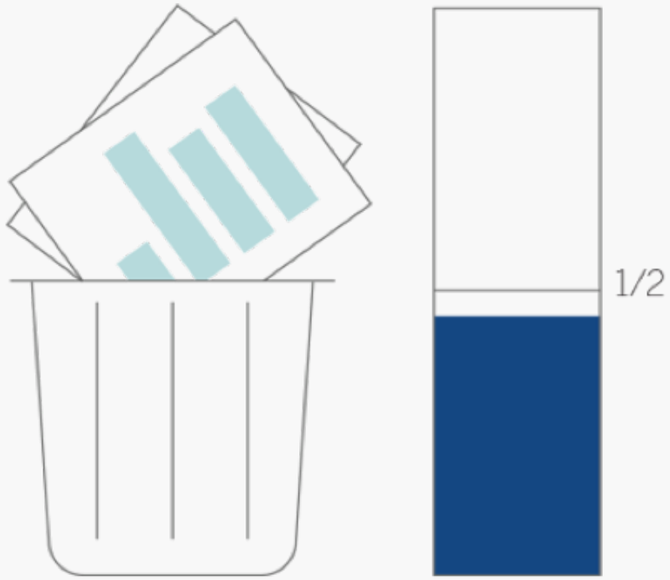
Crowdsourced Governance

“Governance is as much about using the wisdom of the crowd to get the right data to the right person as it is locking down the data from the wrong person.”

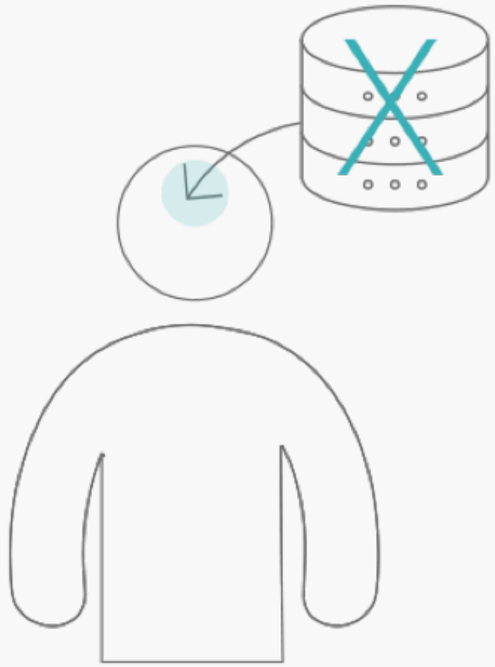
Ellie Fields, Sr. Director of Development

The Future of Data Governance is Crowdsourced

45% of data citizens say that less than half of their reports have good quality data. (Collibra)



61% of C/V Suite leaders say their own companies' decision-making is only somewhat or rarely data driven. (PwC)



In Depth: Crowdsourced Governance

The trend in governance is moving to a model that helps support a growing amount of users while also placing the right checks and balances in place.

Excuse the Disruption

- Disruption is happening with governance.
- As self-service analytics expands, a funnel of valuable perspectives begins to inspire new ways to implement governance.

Collaborative Governance

- Top-down processes that only address IT control will be discarded in favor of a collaborative governance.
- IT and end users will work together to identify the most important data to govern and create analytic processes that make sense.

Discussion Questions

Crowdsourced Governance

- How has the increase in business users and maybe even non-technical users of a BI platform changed the way data governance has evolved?

- What do you think worries companies about having multiple roles and/or functions involved in the data governance process?

7.

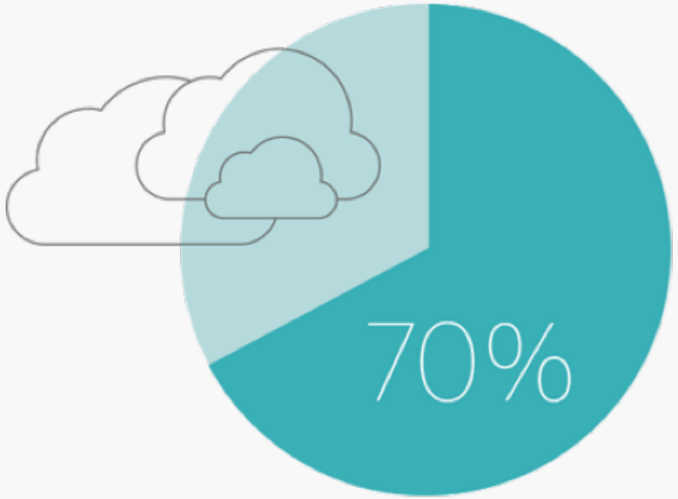
Multi-Cloud Debate

“This multi-cloud or hybrid cloud strategy is becoming increasingly important to help reduce risk and provide more choice and flexibility for customers.”

Francois Ajenstat, Chief Product Officer

A Good Chance of Clouds and Analytics

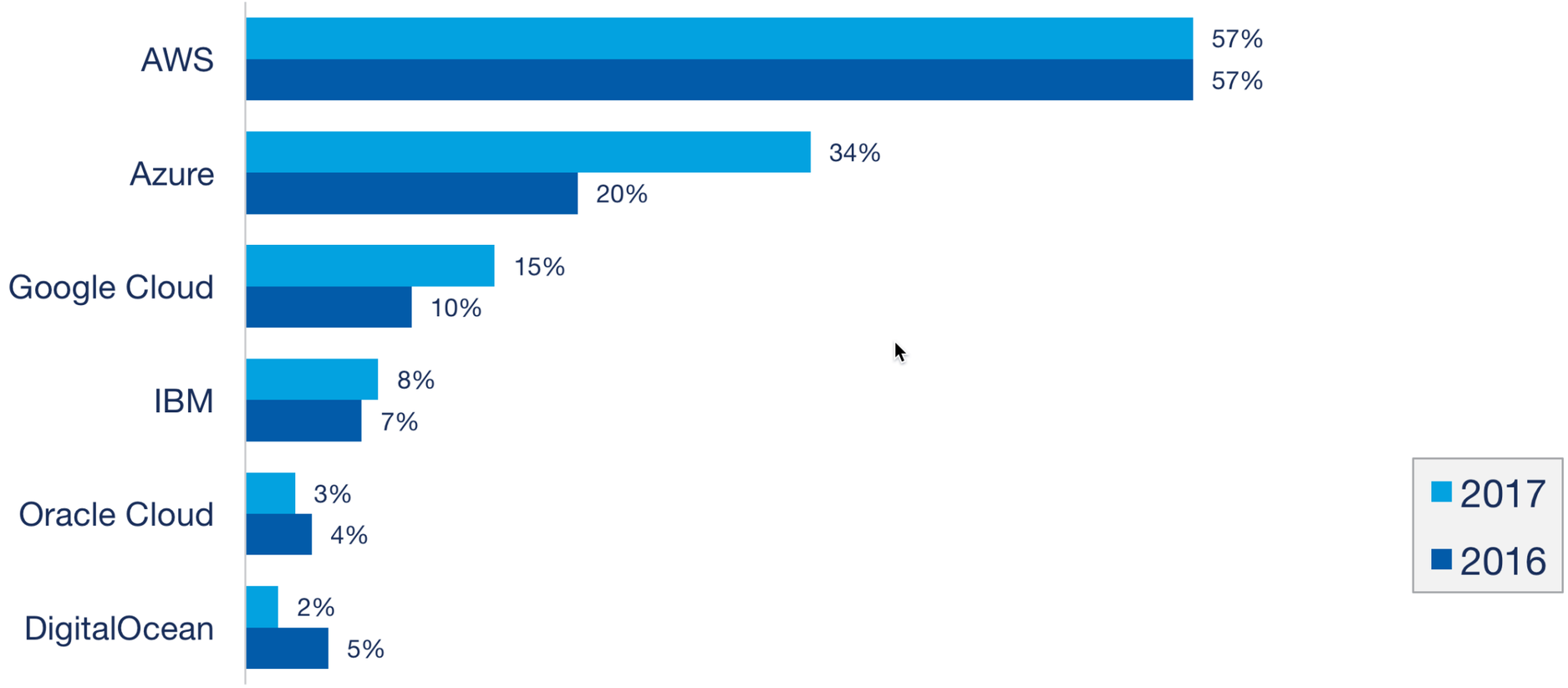
70% of enterprises will be implementing a multi-cloud strategy by 2019. (Gartner)



74% of Tech Chief Financial Officers say cloud computing will have the most measurable impact on their business in 2017. (Forbes)

Public Cloud Adoption 2017 vs. 2016

% of Respondents Running Applications



Source: RightScale 2017 State of the Cloud Report

In-Depth: Multi-Cloud Debate

The multi-cloud trend doesn't come without a healthy awareness of the merits and challenges of moving to this type of environment.

Possible Cost Increases

- Overhead cost may increase from splitting your organization's workloads across multiple providers.
- An internal developer team may need to learn multiple platforms and add more governance.

Point of Failure Risk

- In many multi-cloud cases, organizations are using one provider for most of their needs and very little for others.
- May need to implement a second cloud hosting environment as a backup.

Discussion Questions

Multi-Cloud

- Gartner expects a multi-cloud strategy will become common for 70% of enterprises by 2019. Do you see this trend happening and why?

- What are some of the evaluation methods and tactics you employ to determine to a cloud hosting environment?

- What benefits do you see from having a multi-cloud environment? What things concern you about managing more than one cloud solution?

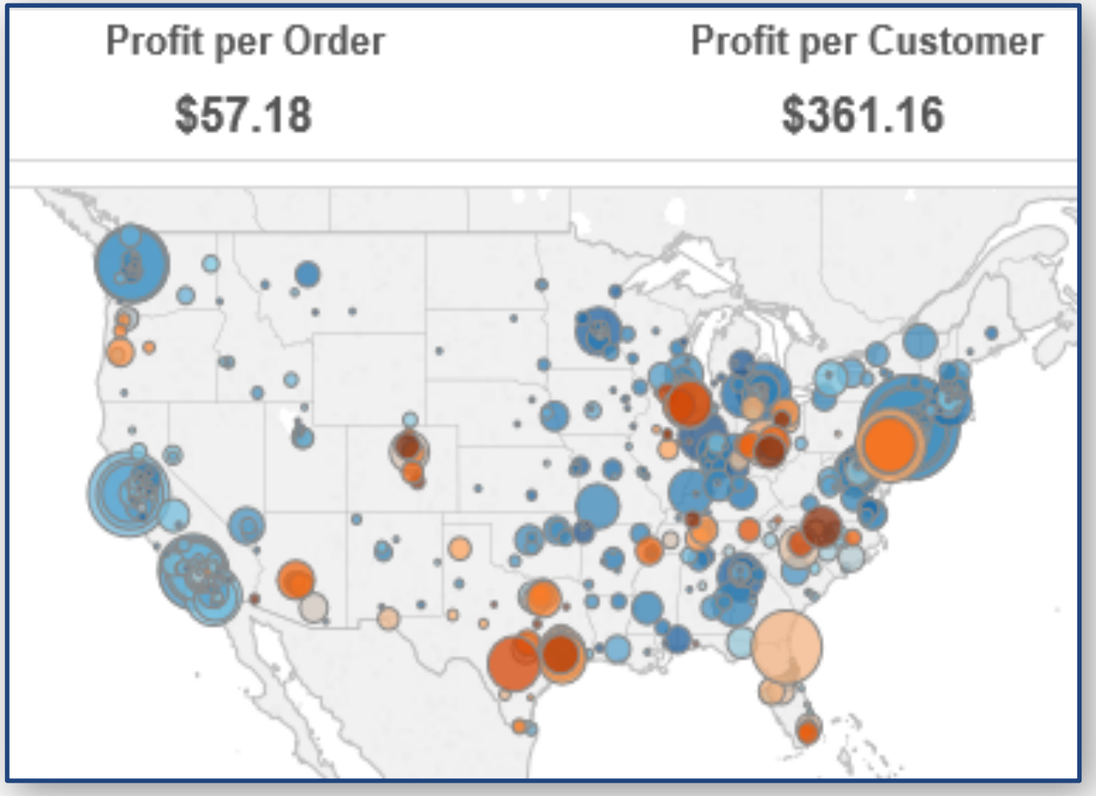
6.

Promise of NLP

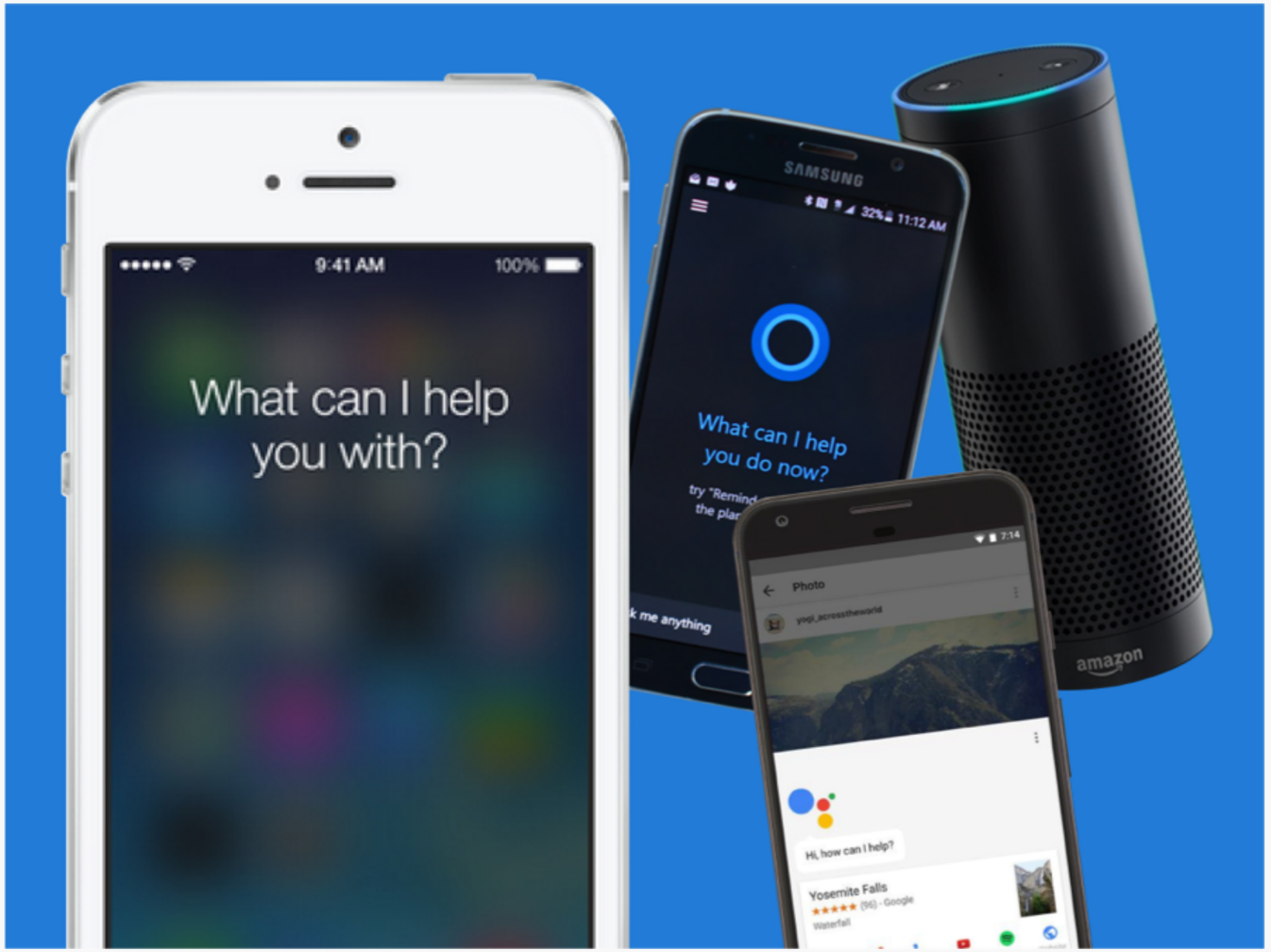
“[NLP] can open the analysts’ eyes a little bit and gives them some self-assurance and some confidence in what they're able to do.”

Brian Elrod, Data Analysts Lead
Mortgage Investor Group

Natural Language Processing

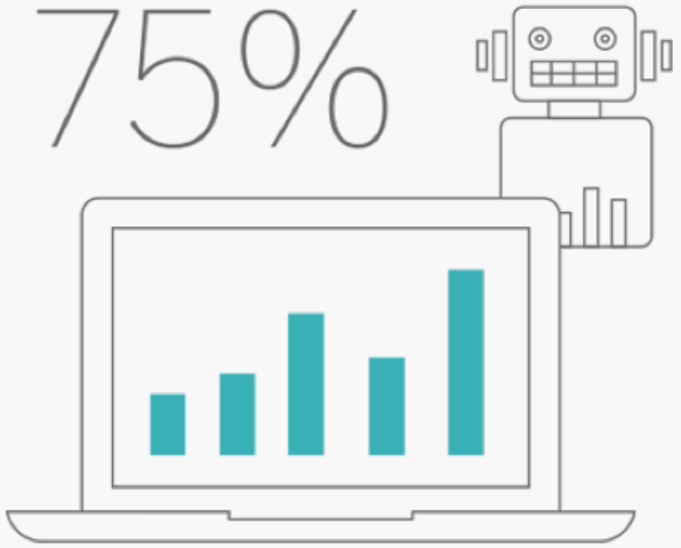


Natural Language Processing

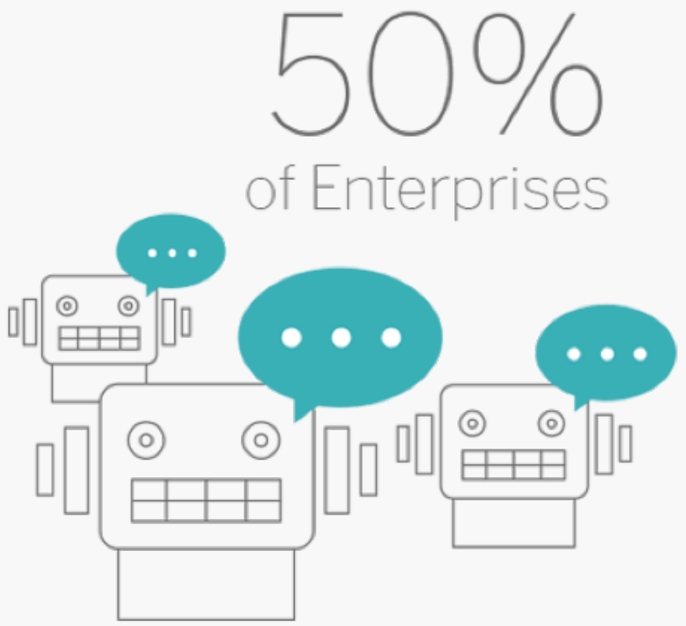


Have a Conversation with Analytics

By 2019, 75% of workers whose daily tasks involve the use of enterprise applications will have access to intelligent personal assistants to augment their skills and expertise. (IDC)



By 2021, more than 50% of enterprises will be spending more per annum on bots and chatbot creation than traditional mobile app development. (Gartner)



In-Depth: Natural Language Processing

NLP will empower people to ask more nuanced questions of data and receive relevant answers that lead to better everyday insights and decisions.

Enterprise Scenario

- A CEO can soon quickly ask his mobile device to tell him: “Total sales by customers who purchased staples in New York,” then filter to “orders in the last 30 days,” and then group by “project owner’s department.”

School Scenario

- A child’s school principal could ask: “What was the average score of students this year,” then filter to “students in 8th grade,” and group by “teacher’s subject.”

Discussion Questions

Natural Language Processing

- With the advancement of Siri and Alexa - do you think customers will have an increased expectation on what natural language processing can solve?

- Do you view NLP to be a source for instant gratification vs more of an exploratory mode?

- Do you see NLP offering up more opportunities for data citizens to access and analyze data?

UPCOMING WEBINAR: “The Promise of NLP” - Feb. 14th – 10am (PST)

5.

Rise of the Chief Data Officer

“My job is to bring tools and technologies and empower the team.”

Peter Cregger, Chief Data Officer

Save a Seat for the Chief Data Officer

By 2019, 90% of large companies will have a CDO role in place. (Gartner)

By 2020, 50% of leading organizations will have a CDO with similar levels of strategy influence and authority as their CIO.

Why a Chief Data Officer?

49% feel increased pressure to provide data to business more quickly.

47% see a grater demand for higher quality data.

-CIO Insight

In-Depth: Chief Data Officer

As data and analytics become a core to every organization, a new level of strategic focus and accountability is needed for BI initiatives.

Before The CDO

- Before, the CIO oversaw data assets across the organization, which needed consistent reporting.
- BI initiatives including data governance or building analytical models then competed with other strategic IT initiatives.

After The CDO

- The CDO is accountable for analytics investments, and communicates the value of analytics at all levels of the organization.
- CIO, an then have a more strategic focus on things such as data security.

Discussion Questions

Chief Data Officer

- One shift we are seeing is that the CDO is starting to report directly to the CEO, why do you think this is happening?

- What are some of the KPIs or goals that you see the CDO accountable for today and moving forward in the future?

4.

Location + Internet of Things

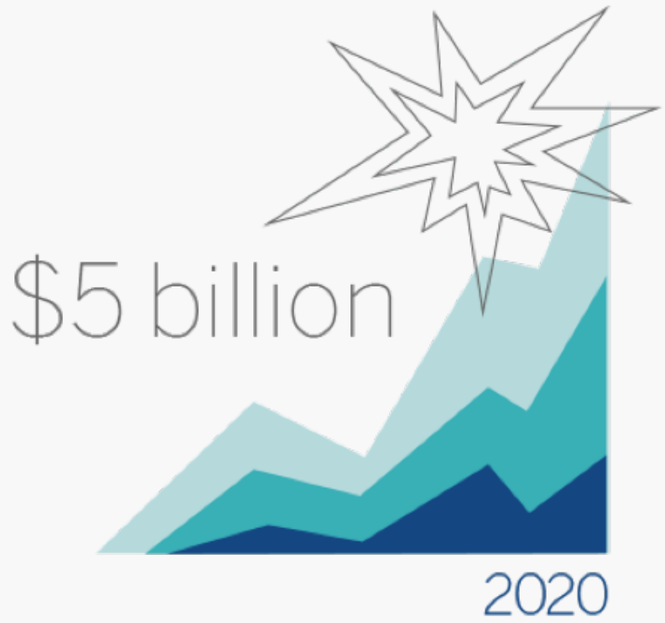
“When most people think location or geospatial, they think of it as a dimension. It's something I'm going to analyze...the new trend is that it is becoming an input into the analytical process.”

Josh Parenteau, Market Intelligence Director

The Proliferation of the Internet of Things

IoT endpoints will grow to 30 billion by 2020. (IDC)

Explosive growth of IoT is expected, exceeding more than $5 billion by year-end 2020. (Gartner)



In-Depth: Location + Internet of Things

By knowing where an IoT device is located, it allows us to add context, better understand what is happening and what we predict will happen in a specific location.

Data Capture

- Hospitals, stores, and hotels have begun to use new technology for indoor location services which was typical difficult for GPS to achieve.
- This tracks specific assets, people and even interact with mobile devices like smartwatches, in order to provide personalized experiences.

Data Analysis

- As it relates to analyzing the data, location-based figures can be viewed as an input versus an output of results.
- Analysts can then help better understand what is happening, where it is happening, and what they should expect to happen in a contextual area.

Discussion Questions

Location + Internet of Things

- What has been your take on IoT as a trend? Do you see it being utilized more or less?
- When we think about bringing location data to IoT – what benefits do you see companies leveraging?

3

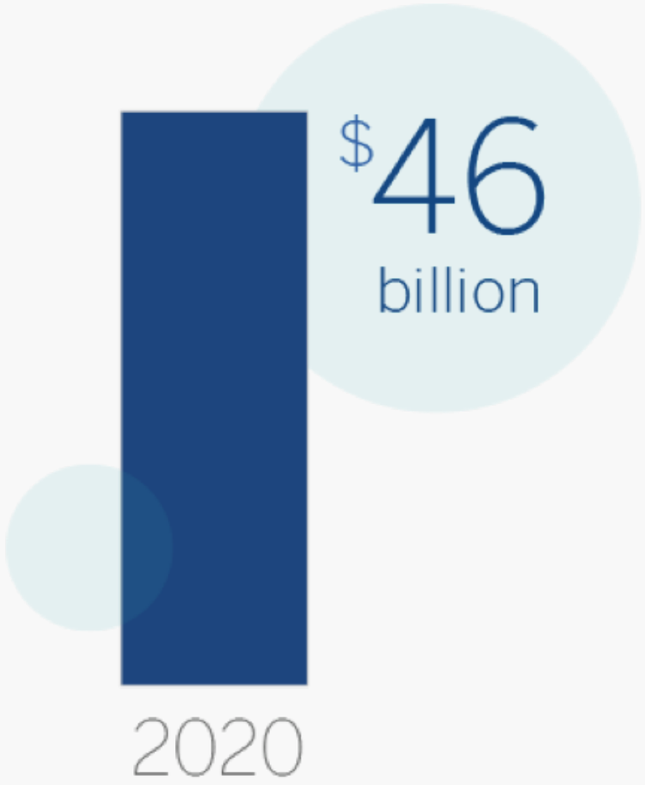
Don’t Fear Artificial Intelligence

“Machine learning helps you look under lots and lots of rocks when you need assistance getting an answer.”

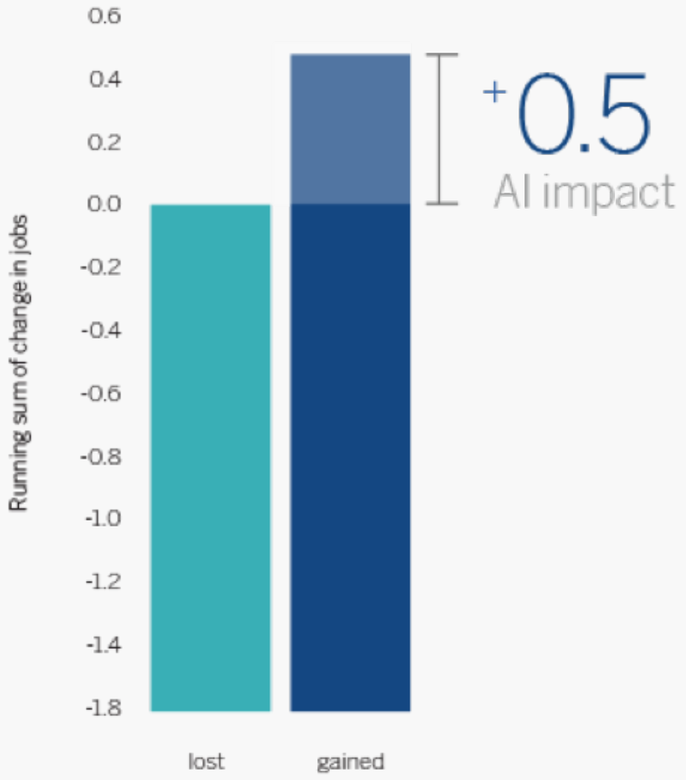
Ryan Atallah, Staff Software Engineer

AI & Machine Learning To Boom

IDC forecasts revenues from AI and machine learning systems to total $46 billion by 2020



In 2020, AI will become a positive net job motivator, creating 2.3 million jobs, Gartner reports



In-Depth: Don’t Fear AI - Machine Learning

Machine learning is rapidly becoming a valuable supplement for the analyst. In fact, machine learning will be the ultimate assistant to the analyst.

More Efficiency

- Analysts won’t need to spend valuable time on basic math.
- Analysts will have more time to think about business implications and the next logical steps.

Less Interruptions

- Analysts no longer have to stop and crunch the numbers.
- Machine learning can help analysts stay in the flow, and focus on the next question.

Discussion Questions

Machine Learning

- What gets you most excited when it comes to combining the power of machine learning and data analytics?

- Why do we think there is so much “hype” around machine learning take over our jobs and the world?

UPCOMING WEBINAR: “Don’t Fear AI” – Feb. 7th – 10am (PST)

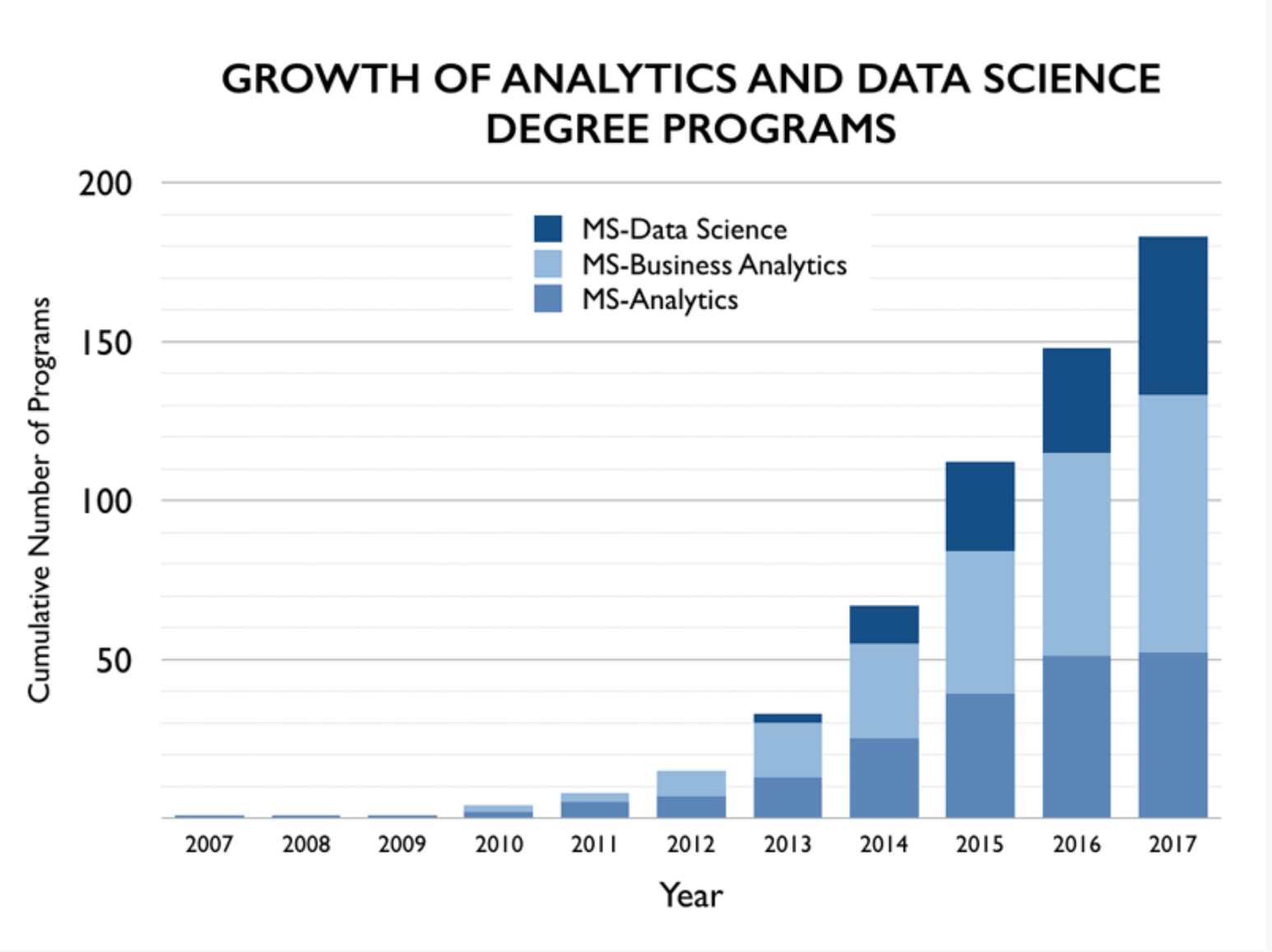
2.

Academics Investment

“I'm constantly surprised by what the students come up with, and blown away with how they're able to just intuitively look at the data and play with the data and come up with some visualizations.”

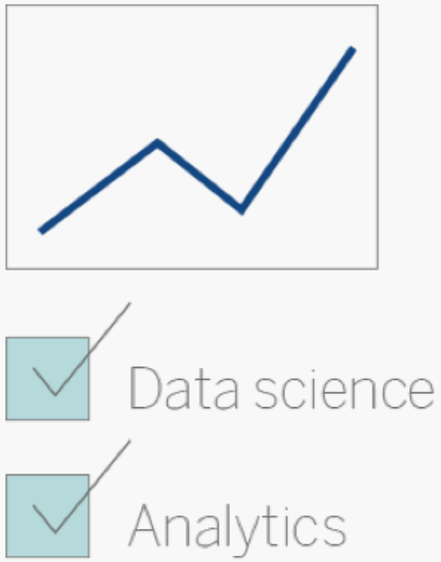
Robyn Rashke, Professor
University of Nevada, Las Vegas

Growth of Analytics and Data Science Degree Programs

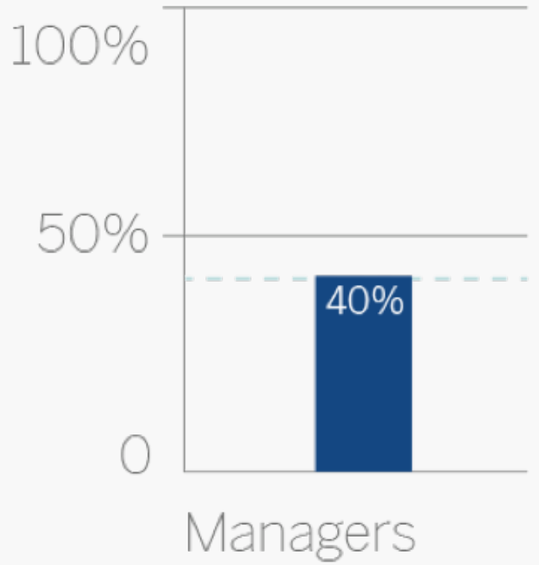


Universities Double Down on BI Programs

By 2021, 69% of employers will demand data science and analytics as a critical skill set of job candidates. (PWC)



A recent MIT survey found that 40% of managers have had trouble hiring analytical talent. (MIT)



In-Depth: Academic Investment

The hard skills of analytics are no longer an elective; they are a mandate. Here are a couple of examples of schools further developing their analytics degrees.

Masters Program

- North Carolina State University is home to the first Master of Science Analytics program.

Bachelors Program

- University of California, San Diego launched a first for their institution—an undergraduate major and minor in data science.
- UC Berkeley, UC Davis, and UC Santa Cruz have also increased their data science and analytics options for students.

Discussion Questions

Academic Investment

- In our interviews with college professors, they are seeing data analytics programs showing up in multiple domains. Why do you think this is the case?

- We are all aware of the shortage of data workers. How will this academic investment help combat that problem?

1.

Data Engineer Role

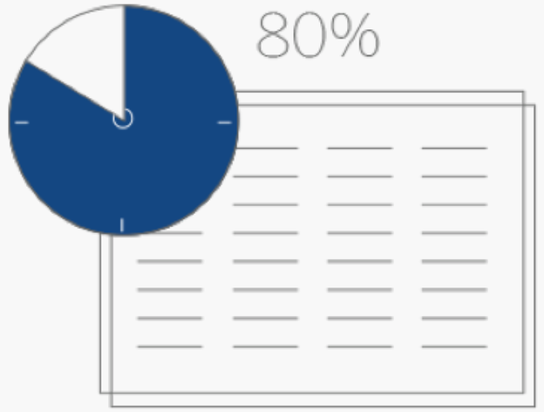
“Data engineers play a fundamental part in enabling self-service for the modern analytics platform.”

Francois Ajenstat, Chief Product Officer

Increased Prominence of the Data Engineer Role

A 2016 Gartner study found respondent organizations were losing an average of $9.7 million annually as a result of poor data quality.

Data scientists and analysts can spend as much as 80% of their time cleaning and preparing data. (TechRepublic)



Data Engineer – Software Engineers by Trade

Role
Develops, constructs, tests and maintains architectures (such as databases and large scale processing systems)

Languages
SQL, Hive, Pig, R, SAS, Ruby, Java (and more)

Skills/Talents:
Database systems
Data modeling & ETL tools
Data APIs
Data warehousing solutions

In-Depth: Data Engineer Role

Data engineers will continue to be an integral part of an organization's movement to use data to make better decisions about their business.

More Data, More Data Engineers

- Data engineers provide deep technical knowledge of the different systems, architecture, and their ability to understand what the business wants or needs thus becoming ever more crucial.

Unique Skillsets

- Data engineers understand the backend, what's in the data, how it can serve the business user, and offers develop technical solutions to make the data is usable.

Discussion Questions

Data Engineers

- Are you surprised that this trend ended up #1 after voting from our community? Why?
- How has the data engineer role changed?

Discussion Questions

2018 Trends

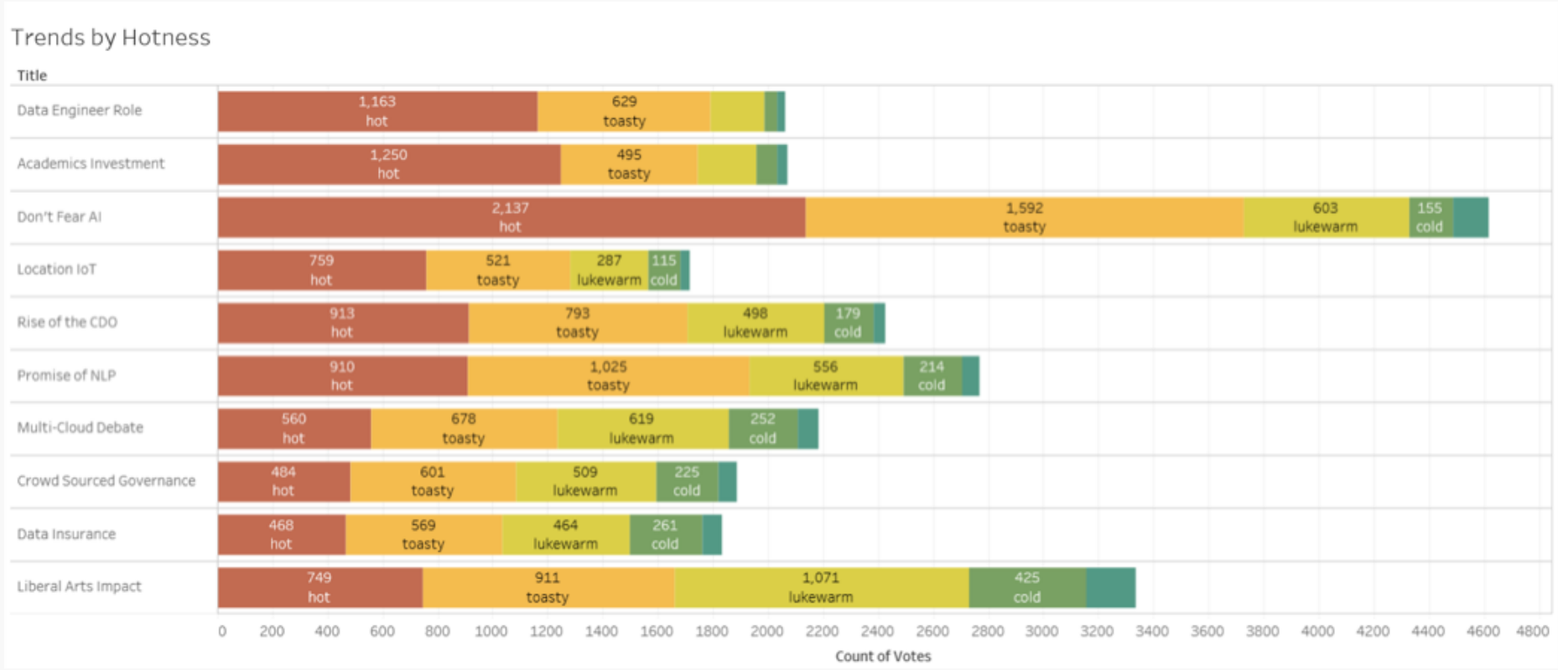
- Questions from the webinar audience
- Anything not on this list that should be?
- Surprise for how the community voted?

2018 BI Trends Workbook

BI Trends Survey Workbook

We will continue to accumulate votes throughout the year and you can follow along with this visualization.

You can also download the workbook if you are interested in digging deeper on your own.



https://public.tableau.com/profile/tableau.core.product.marketing#!/vizhome/2018Top10BITrendsVotes/Votes

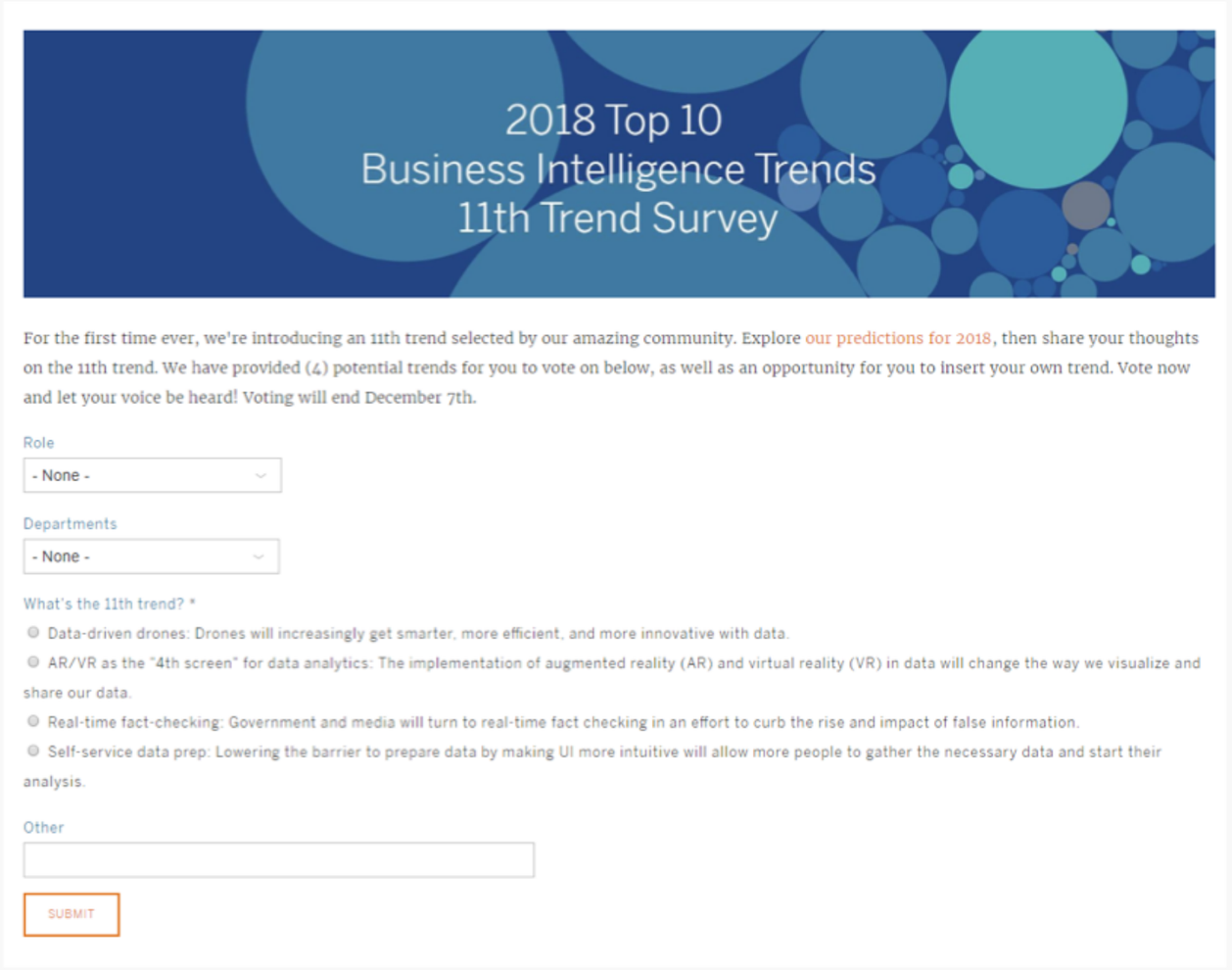
11.

2018 BI Trend Voted By Our Community

BI Trends 11th Trend Survey

To take our community ask one step further, we also asked to provide your 11th trend and provided (4) options and a blank “other field”

- Data driven drones
- AR/VR as 4th screen
- Real-time facet checking
- Self-service data prep



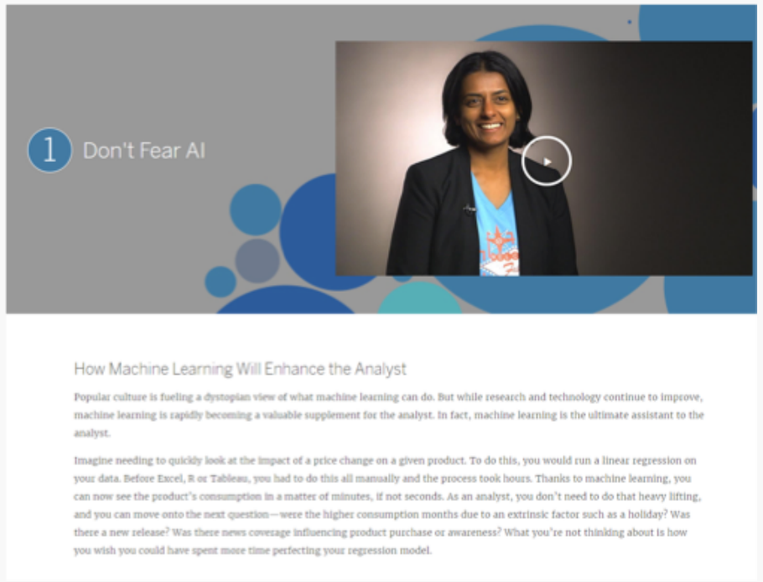
Self Service Data Prep

Additional Resources

BI Trends Additional Resources

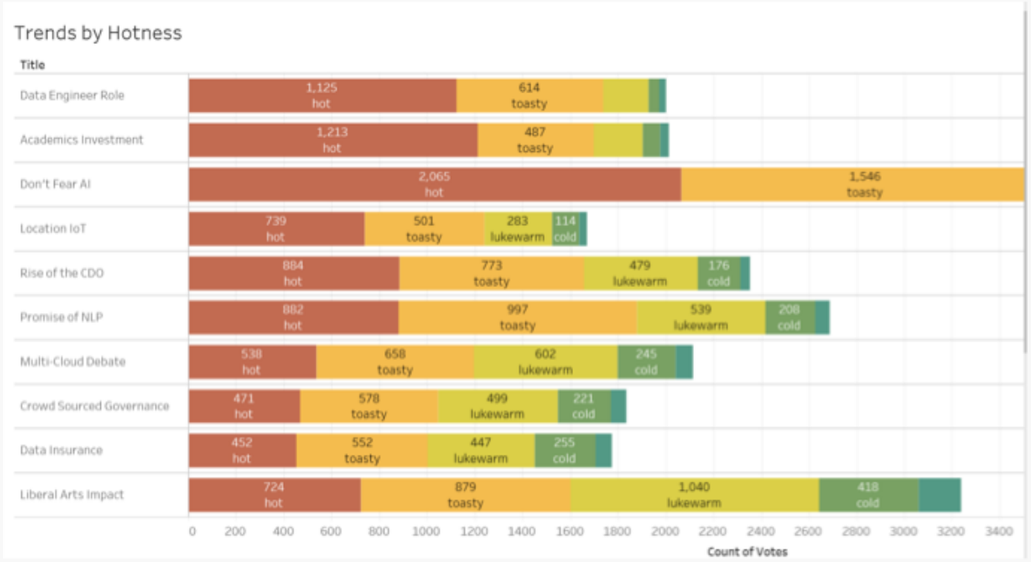
2018 BI Trends – Full Report

http://tabsoft.co/2A2Mwhm



BI Trends Voting Visualization

https://public.tableau.com/profile/tableau.core.product.marketing#!/vizhome/2018Top10BITrendsVotes/Votes



BI Trends Additional Resources

2018 BI Trends – Facebook Live w/ Chief Product Officer Francois Ajenstat
http://tabsoft.co/2D653LF

We're chatting with Tableau Chief Product Officer Francois Ajenstat,...
16K views · November 16, 2017

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