

Using Data: Generating Compliance Value from Data

Masterclass Series (Class 2)
March 3rd, 2021

<https://events.ethisphere.com/events/data-analytics-masterclass-series/>



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Thank you for joining!
Before we get started...

Q&A

Please submit your questions using the Questions feature in your Zoom Experience.

CHAT

Need assistance? The Chat feature will be open throughout the webcast.

RECORDING & PPT

Today's presentation, recording and additional resources will be provided via email after the webcast.

DON'T FORGET

Join us for the extended masterclass series!
March 17th | Practical Data Analytics: Deep Dives Into Specific Use Cases

Agenda

- **Introductions**
- Class 1 Recap
- Data-Driven Compliance Value
 - Methodology
 - Audience
 - Process Considerations
- Q&A

Speaker



Andy Miller

Chief Analytics Officer @ Lextegrity

Helping organizations mitigate risk across the enterprise, specifically through employing advanced analytics to expose fraud, bribery, corruption, conflicts of interest and sanctions violations within enterprise data.

Contact me @ amiller@lextegrity.com

Learn more @ <https://www.lextegrity.com/>

Speaker



Kara Bonitatibus

Head of Product @ Lextegrity

Helping organizations mitigate risk across the enterprise, specifically through employing advanced analytics to expose fraud, bribery, corruption, conflicts of interest and sanctions violations within enterprise data.

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Learn more @ <https://www.lextegrity.com/>

The Lextegrity & Ethisphere Partnership

- Knowledge & Best Practices Sharing
<https://ethisphere.com/what-we-do/lextegrity/>
- Data Analytics Working Group
- Integrity Analytics Collective
<https://www.lextegrity.com/collective>



Lextegrity's Mission

Data-Driven + Intuitive + Integrated

FIRST GENERATION



INTEGRITY GATEWAY



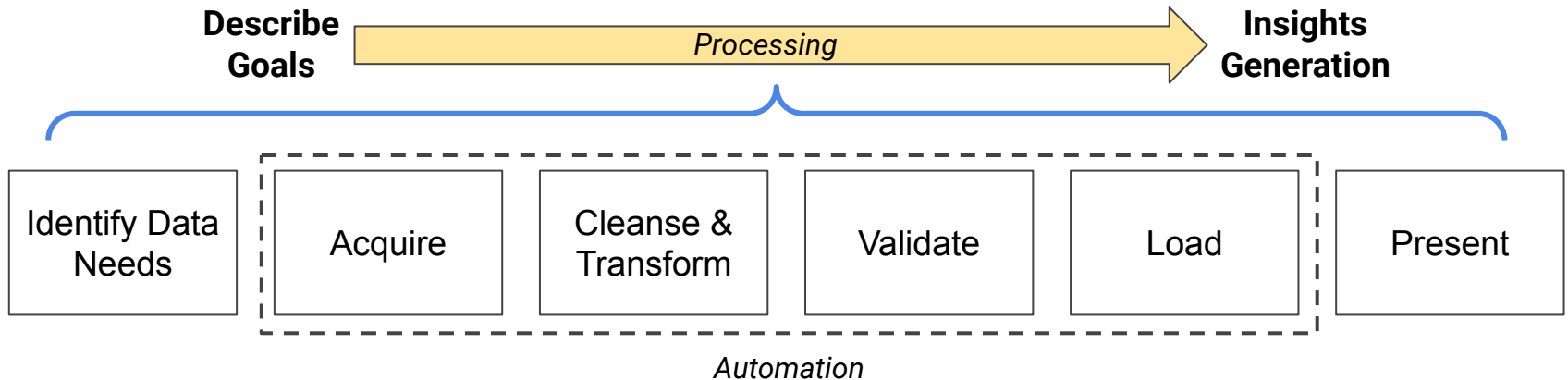
Agenda

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The goal is to turn data into information,
and information into insight.

CARLY FIORINA, FORMER CEO OF HP

Raw Data to Information to Insights



A replay of this Masterclass is available here:

<https://ethisphere.com/insight/lextegrity-masterclass-series/>

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Data-Driven Compliance Value



**Access to Better
Information**



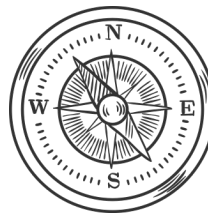
**Organizational
Understanding**



**Root-Cause Identification
and Prevention**



**Risk Context
Infusion**

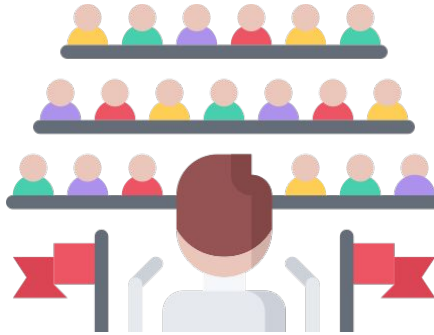


Reactive to Proactive

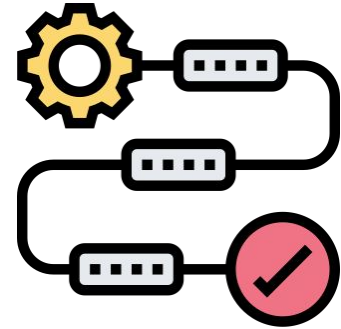
But How?



Methodology



Audience



Process



Methodology

Transaction Monitoring



Information



Settings

Sections

- Monitoring Review Settings
- Risk Engine Settings**
- Settings History

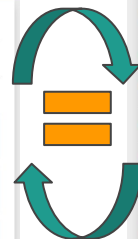
Risk Engine Scoring

SAVE SETTINGS

Employee Spend Analyses

| Enabled | Name | Importance | |
|-------------------------------------|------------------------------|-----------------|---|
| <input checked="" type="checkbox"/> | Ad-Hoc Subject Monitoring ⓘ | Low Medium High | + |
| <input type="checkbox"/> | Aggl Expense (Submitted) ⓘ | Low Medium High | + |
| <input checked="" type="checkbox"/> | Aggregate Limits Detection ⓘ | Low Medium High | + |

Risk Analyses



Monitoring Review

| | STATUS | DOMAIN | SPEND DATE | NAME | COUNTRY | ENTITY | NATURE | AMOUNT | RISK SCORE |
|--|--------------------------------|----------|------------|---------------------|-----------------------|--------|----------------------|-------------|------------|
| | (ALL) | (ALL) | | | | | | | |
| | In Review | Vendor | 2020-01-22 | Hill Group | Canada | CC-356 | PO Related | \$20,832.50 | 5.0 |
| | Open | HGX | 2020-01-02 | Wesley Miller | United States of A... | CC-650 | Services - Non Co... | \$2,671.98 | 4.6 |
| | In Remediation | Employee | 2020-01-02 | Sarah Hayes | Germany | CC-079 | Meal | \$613.10 | 4.6 |
| | Open | Employee | 2020-02-21 | Stephen Espinoza | United States of A... | CC-650 | Meal | \$1,557.01 | 4.2 |
| | Open | HGX | 2019-11-14 | Lisa Green | United States of A... | CC-650 | Food and Beverage | \$67.73 | 4.1 |
| | Open | Employee | 2020-01-19 | Zachary Walker | United States of A... | CC-650 | Meal | \$1,297.06 | 3.9 |
| | Open | HGX | 2020-01-23 | Blake Group | United States of A... | CC-650 | Consulting Fee | \$138,224 | 3.8 |
| | Open | Vendor | 2020-02-26 | Donaldson, Larse... | Brazil | CC-350 | PO Related | \$8.32 | 3.7 |
| | Open | Vendor | 2020-05-26 | Thomas Inc | United States of A... | CC-650 | Non-PO Related | \$333.75 | 1.6 |
| | Open | Employee | 2020-01-10 | Joseph Bender | Ireland | CC-272 | Transportation Ot... | \$2.95 | 1.5 |
| | Open | Employee | 2020-01-20 | Paula Wright | Mexico | CC-742 | Fees Travel | \$12.05 | 1.2 |

Page 1 of 1 20 rows

Prioritized Transactional Monitoring

The greatest value of a picture is when it forces us to notice what we never expected to see.

John W. Tukey, Statistician



Visual Communication is Primal

How many 4's can you spot?

58769801691000986169997418502703793722831397
61099022286261322719051009891323328020380939
61804535207535758818349175318999391123816671
16827052377603356319297002753722518788124977
27152883560996973153688560719205557923739266
96526905416783677770518902891232576750502858
91912766707757810236253890308976285259022818
33262248592595330593070353109554351965706267
22539080085791250215024063640217620870567260



Visual Communication is Primal

Now, how many do you see now?

58769801691000986169997**4**18502703793722831397
61099022286261322719051009891323328020380939
6180**4**5352075357588183**4**9175318999391123816671
1682705237760335631929700275372251878812**4**977
27152883560996973153688560719205557923739266
96526905**4**16783677770518902891232576750502858
91912766707757810236253890308976285259022818
332622**4**859259533059307035310955**4**351965706267
2253908008579125021502**4**0636**4**0217620870567260



Visual Communication is Primal

Summary statistics for the table:

- The average x value is 9 for each dataset
- The average y value is 7.50 for each dataset
- The variance for x is 11 and the variance for y is 4.12
- The correlation between x and y is 0.816 for each dataset
- A linear regression (line of best fit) for each dataset follows the equation $y = 0.5x + 3$

| I | | II | | III | | IV | |
|------|------|------|------|------|------|-----|------|
| x | y | x | y | x | y | x | y |
| 10.0 | 8.04 | 10.0 | 9.14 | 10.0 | 7.46 | 8.0 | 6.58 |
| 8.0 | 6.95 | 8.0 | 8.14 | 8.0 | 6.77 | 8.0 | 5.76 |

In terms of statistical measures, these four datasets appear to be pretty similar!

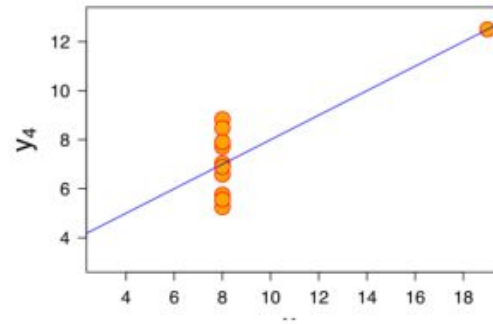
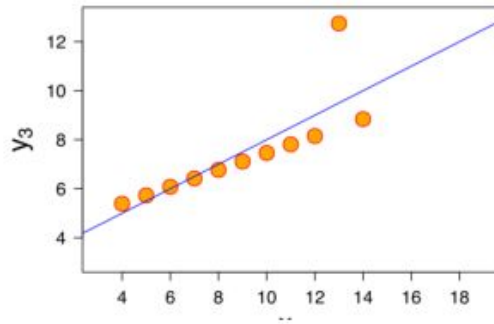
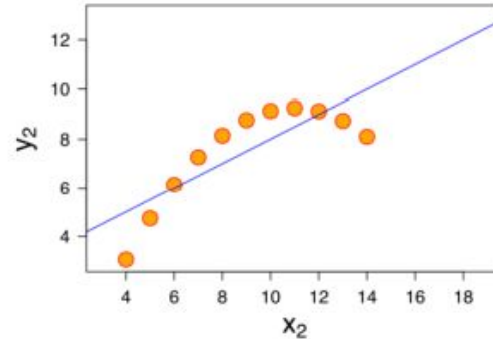
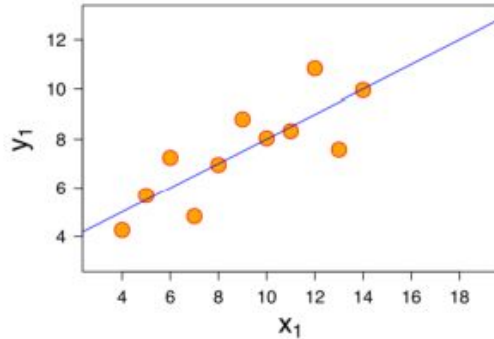
| | | | | | | | |
|-----|------|-----|------|-----|------|-----|------|
| 5.0 | 5.68 | 5.0 | 4.74 | 5.0 | 5.73 | 8.0 | 6.89 |
|-----|------|-----|------|-----|------|-----|------|

Each dataset has eleven (11) x & y points.



Methodology

Data Visualization



**This is known as
Anscombe's Quartet**



Methodology

Data Visualization

The contexts of data visualization...

Insights

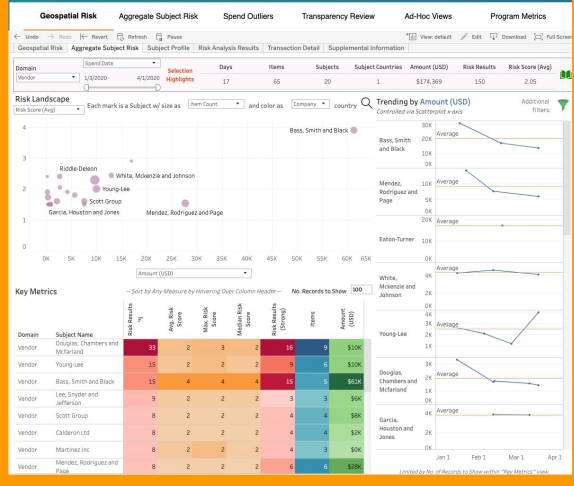
Reporting

Investigative

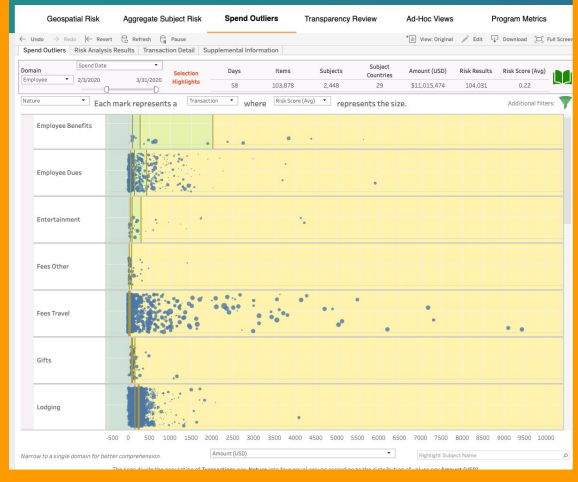
Compliance Scorecard



Risk Insights



Risk Insights





Methodology

Data Visualization

Reporting

- Periodic in Nature
- Aggregate Dimensions
- Aggregate Measures
- Filterable by Key Dimensions
- Comparative
- "Dashboard" format



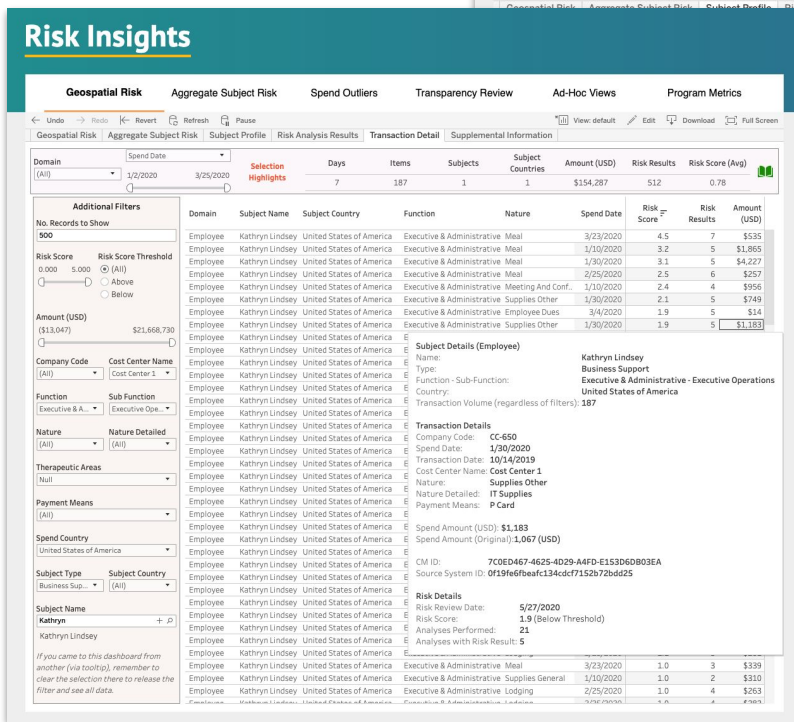


Methodology

Data Visualization

Investigative

- Quick lookup
- Robust filtering
- “Profile” views



Risk Insights

Geospatial Risk | Aggregate Subject Risk | Spend Outliers | Transparency Review | Ad-Hoc Views | Program Metrics

Undo | Redo | Revert | Refresh | Pause | View default | Edit | Download | Full Screen

Amount (USD) | Frequency | Risk Results | Avg. Risk Score | Items Identified

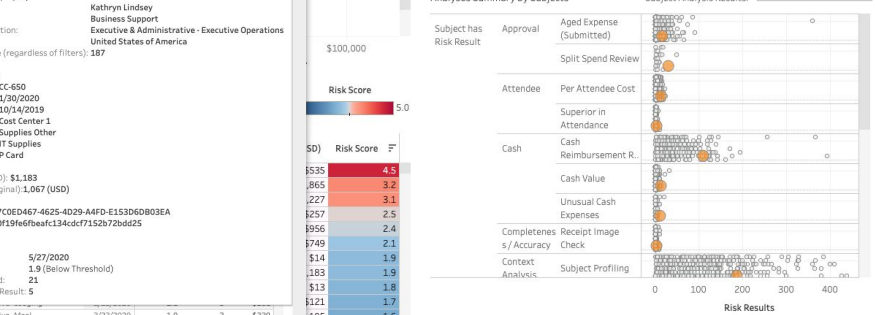
\$154,287 | 187 Items | 512 | 0.8 | 1

Comparison to Subject's Domain

Comparing Kathryn Lindsey amongst their Domain - Employee



Analyses Summary by Subjects





Methodology

Insights

- Quickly identify/discover trends or outliers
- Variety of visualization forms
- Interactive
- Ability to drill-down
- Maintain analysis flow

Monitoring Review

Sections

- Risk Engine Results
- History & Comments

Vendor Transaction [Open](#)

Scored on May 27, 2020
ID: d7c45e24-e37c-41c6-a1ec-0acada409828

Transaction Details

HIGHLIGHTS

| | |
|-------------------------|-----------------------------------|
| Subject Name | Bass, Smith and Black |
| Subject Type | Commercial |
| Subject Country | Mexico (MX) |
| Transaction Date | 2020-02-18 |
| Spend Date | 2020-02-18 |
| Risk Review Date | 2020-05-27 |
| Transaction Age (Days) | 99 |
| Payment Means | Manual |
| Nature | Non-PO Related |
| Nature Detailed | Fed. income tax with (GL Account) |
| GL Account | [Empty] |
| Spend Amount | USD 11260.90 |
| Spend Amount (Original) | MXN 199861.00 |

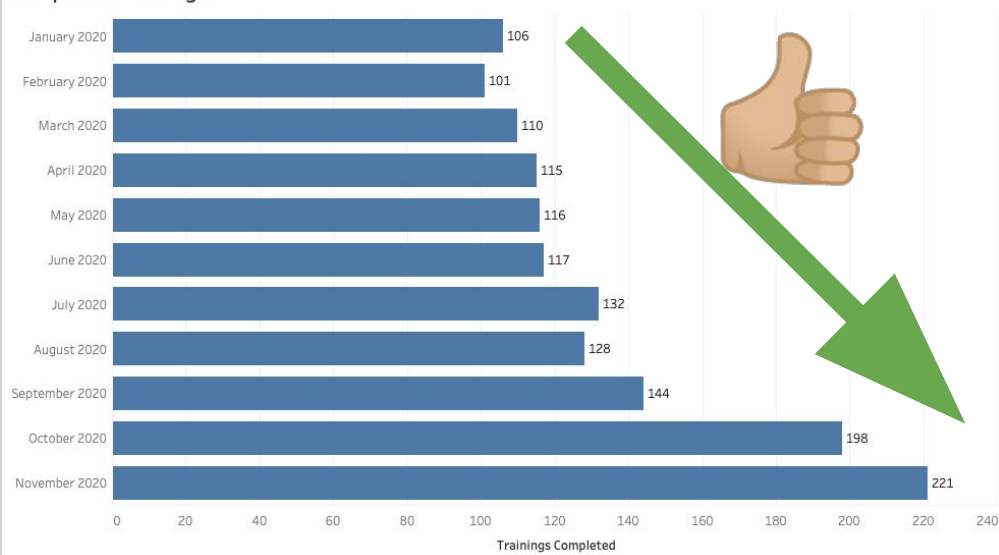


Methodology

Data Visualization

Data Points vs. Analytics vs. KPIs

Completed Trainings



Raw Training Data

| Training Assign.. | Training Name | Business U.. | Employee Name | Employee Hire Date | Training Completed |
|-------------------|-----------------------------------|--------------|--------------------|--------------------|--------------------|
| 1/7/2016 | Authorization and Approval Policy | Technology | Jack O'Briant | 1/6/2016 | Yes |
| | Employee Code of Conduct | Technology | Darren Powers | 1/3/2016 | Yes |
| 1/8/2016 | Employee Code of Conduct | Services | Lycoris Saunders | 1/6/2016 | Yes |
| | Travel and Entertainment Training | Technology | Phillina Ober | 1/4/2016 | No |
| 1/10/2016 | Travel and Entertainment Training | Technology | Maria Etezadi | 1/6/2016 | Yes |
| 1/12/2016 | Employee Code of Conduct | Technology | Mick Brown | 1/5/2016 | Yes |
| | | | Vivek Sundaresam | 1/7/2016 | No |
| 1/13/2016 | Employee Code of Conduct | Technology | Melanie Seite | 1/9/2016 | Yes |
| 1/14/2016 | Employee Code of Conduct | Technology | Seth Vernon | 1/11/2016 | Yes |
| 1/15/2016 | Authorization and Approval Policy | Technology | Anthony Jacobs | 1/10/2016 | Yes |
| | | | Brendan Sweed | 1/14/2016 | No |
| | | | Chris Selesnick | 1/13/2016 | Yes |
| 1/16/2016 | Employee Code of Conduct | Technology | Natalie DeCherney | 1/13/2016 | Yes |
| 1/17/2016 | Employee Code of Conduct | Technology | Erica Hackney | 1/15/2016 | Yes |
| 1/18/2016 | Employee Code of Conduct | Technology | Brian Dahlen | 1/13/2016 | Yes |
| | | | Delfina Latchford | 1/16/2016 | No |
| | | | Michael Moore | 1/13/2016 | Yes |
| 1/20/2016 | Employee Code of Conduct | Services | Toby Swindell | 1/19/2016 | No |
| 1/21/2016 | Authorization and Approval Policy | Technology | David Wiener | 1/18/2016 | Yes |
| 1/23/2016 | Employee Code of Conduct | Technology | Tom Boeckenhauer | 1/21/2016 | Yes |
| 1/25/2016 | Employee Code of Conduct | Services | Mark Van Huff | 1/20/2016 | Yes |
| 1/26/2016 | Authorization and Approval Policy | Technology | Muhammed MacIntyre | 1/20/2016 | No |
| | Employee Code of Conduct | Technology | Hunter Lopez | 1/20/2016 | Yes |
| | | | Xylona Preis | 1/20/2016 | Yes |
| 1/27/2016 | Employee Code of Conduct | Technology | Speros Goranitis | 1/23/2016 | No |
| 1/28/2016 | Employee Code of Conduct | Technology | Ionina McGrath | 1/23/2016 | Yes |
| 1/29/2016 | Authorization and Approval Policy | Technology | Carol Adams | 1/26/2016 | Yes |
| 1/31/2016 | Travel and Entertainment Training | Technology | Shirley Daniels | 1/26/2016 | Yes |
| 2/2/2016 | Employee Code of Conduct | Technology | Ed Jacobs | 1/27/2016 | No |
| | | | Liz Carlisle | 1/31/2016 | No |
| 2/3/2016 | Employee Code of Conduct | Services | Jasper Cacioppo | 1/28/2016 | Yes |
| | | Technology | Bradley Drucker | 2/1/2016 | Yes |
| 2/4/2016 | Employee Code of Conduct | Technology | Mike Vittorini | 1/30/2016 | No |
| 2/6/2016 | Employee Code of Conduct | Technology | Tom Boeckenhauer | 2/3/2016 | Yes |
| | Travel and Entertainment Training | Technology | Cynthia Delaney | 2/2/2016 | Yes |
| 2/8/2016 | Authorization and Approval Policy | Services | Mark Haberlin | 2/4/2016 | Yes |

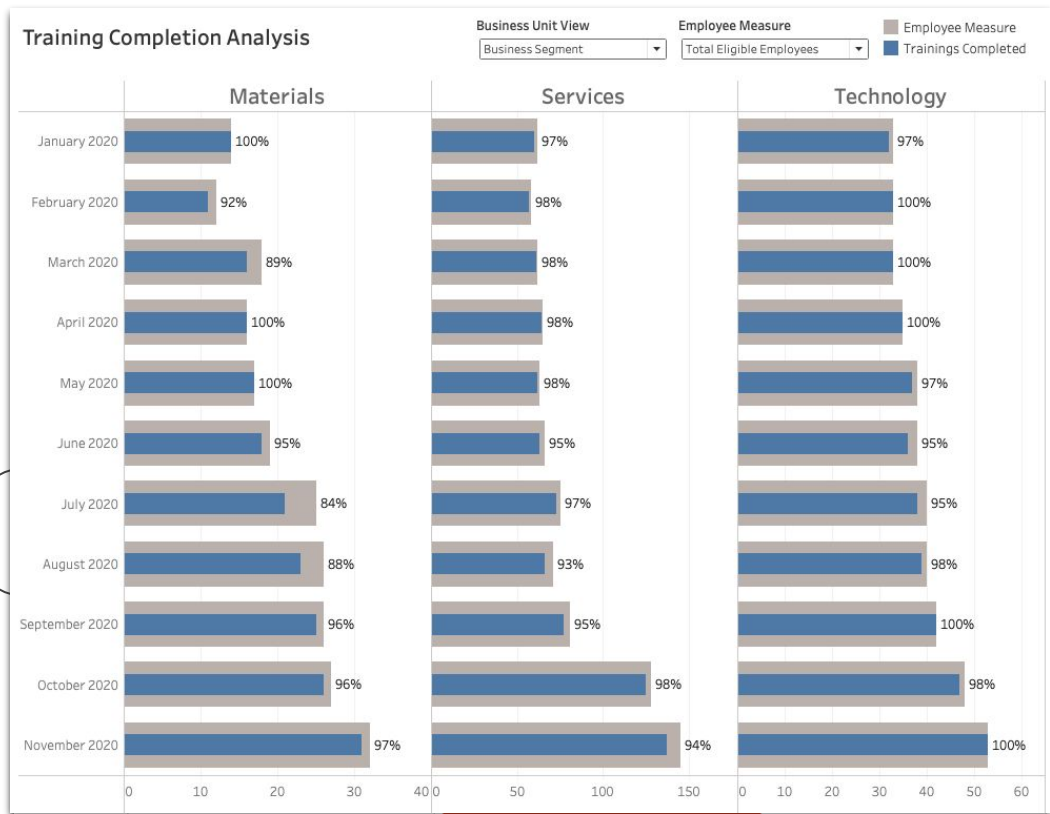


Methodology

Data Visualization

Data Points vs. **Analytics** vs. KPIs

Vacation

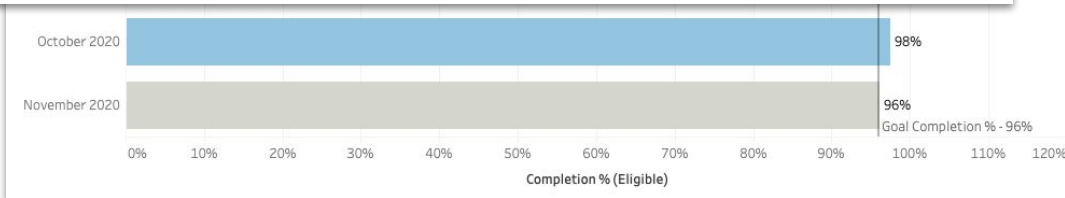
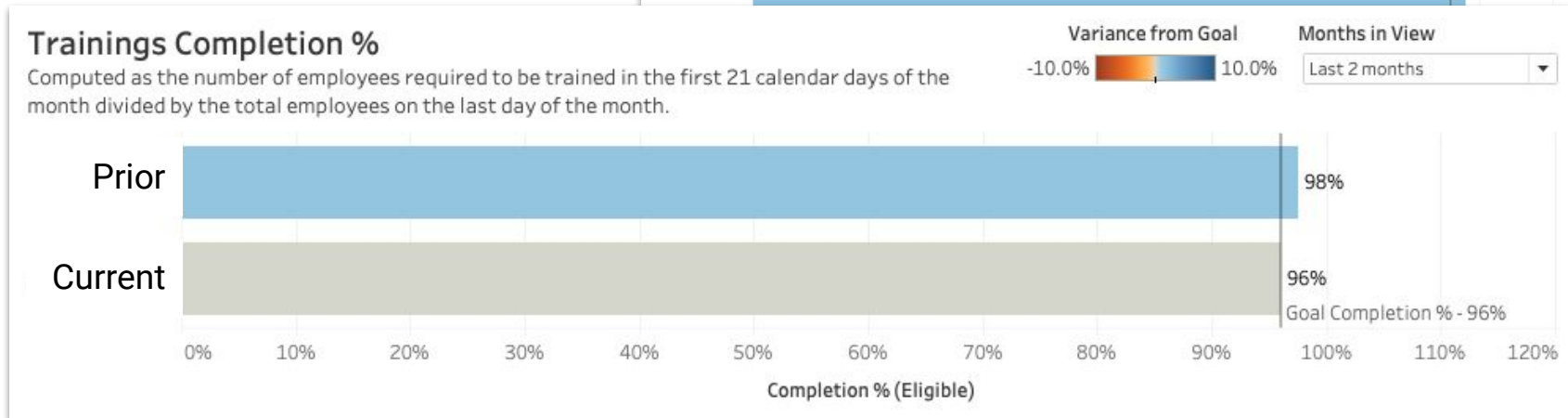
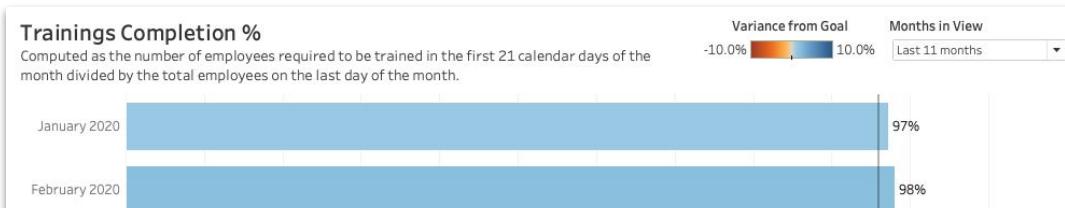




Methodology

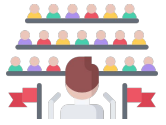
Data Visualization

Data Points vs. Analytics vs. KPIs



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 - **Audience**
 - Process Considerations
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Audience

Who ...



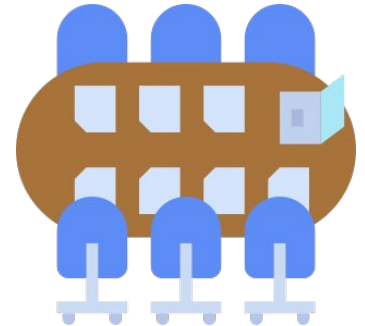
**Data
Specialists**



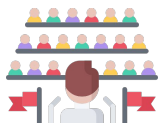
**Risk
Professionals**



**Business
Leaders**



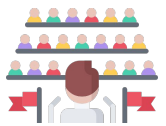
**Executives /
Board**



Audience

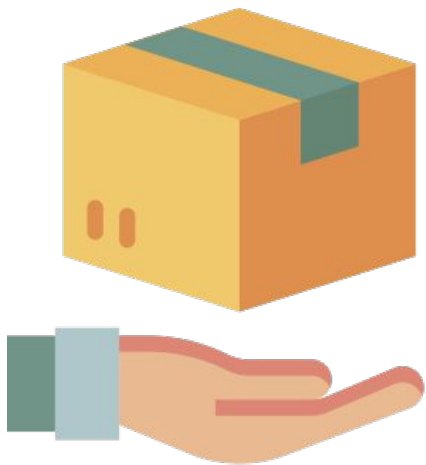
... and, why?

- Do they want the ability to explore the details of the data and perhaps create or inform their own analyses?
- Are they looking for specific trends or patterns in the data?
- Are they using the data to support other activities (e.g., audit, compliance)?
- Do they need or want a curated view of their data in a specific context?
- Are they looking for KPIs or metrics?



Audience

.... and, how?



- How will users access the data?
- How frequently?
- How will they use the data?

There is no such thing as information overload.
There is only bad design.

Edward Tufte



Audience



**Prioritizing
design or
imagery over
accuracy**



**Disregarding
common
associations
or
expectations**



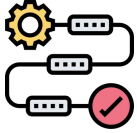
**Choosing the
wrong type of
visualization**



**Making
confusing
correlations**

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Process



Implement framework / governance for making use of your data



Develop workflow to capture data analysis process

- Document follow-up
- Document adjustments to analyses based on feedback



Root cause analysis process

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Questions?

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for today's session here: <https://bit.ly/3q94uEt>

