



Data Driven Storytelling

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THE PURPOSE OF DATA DRIVEN STORYTELLING



- **Drive better decisions** – Data storytelling clarifies what actions should be taken by surfacing key trends, risks, and opportunities within complex datasets.
- **Persuade and Influence** – People rarely make decisions on data alone; they need a reason to make the change.
- **Clarify complex information** - Raw data, dashboards, or reports can overwhelm or confuse decision-makers, especially those without technical backgrounds.
- **Create engagement** - Data doesn't speak for itself. It needs a story to capture attention and spark conversation.

Reporting example

A company's HR team is reviewing employee turnover data. The raw data shows a 22% annual turnover rate.

Without storytelling (just data)

Turnover rate this year is 22%, up from 18% last year.



Components of the story:

- Turnover increased to 22%, up from 18% last year.
- Highest turnover in first-year customer service employees
- Main reasons: poor onboarding and unclear career paths
- Estimated \$10K annual cost from recruitment/training losses
- Recommendation: improve onboarding and career development to reduce churn

WHAT IS THE MOST IMPORTANT
MESSAGE FOR A MUNICIPALITY?

**Protect quality of life through
disciplined stewardship**

DATA DRIVEN STORYTELLING PROCESS

Gathering the Background



Collecting the Data

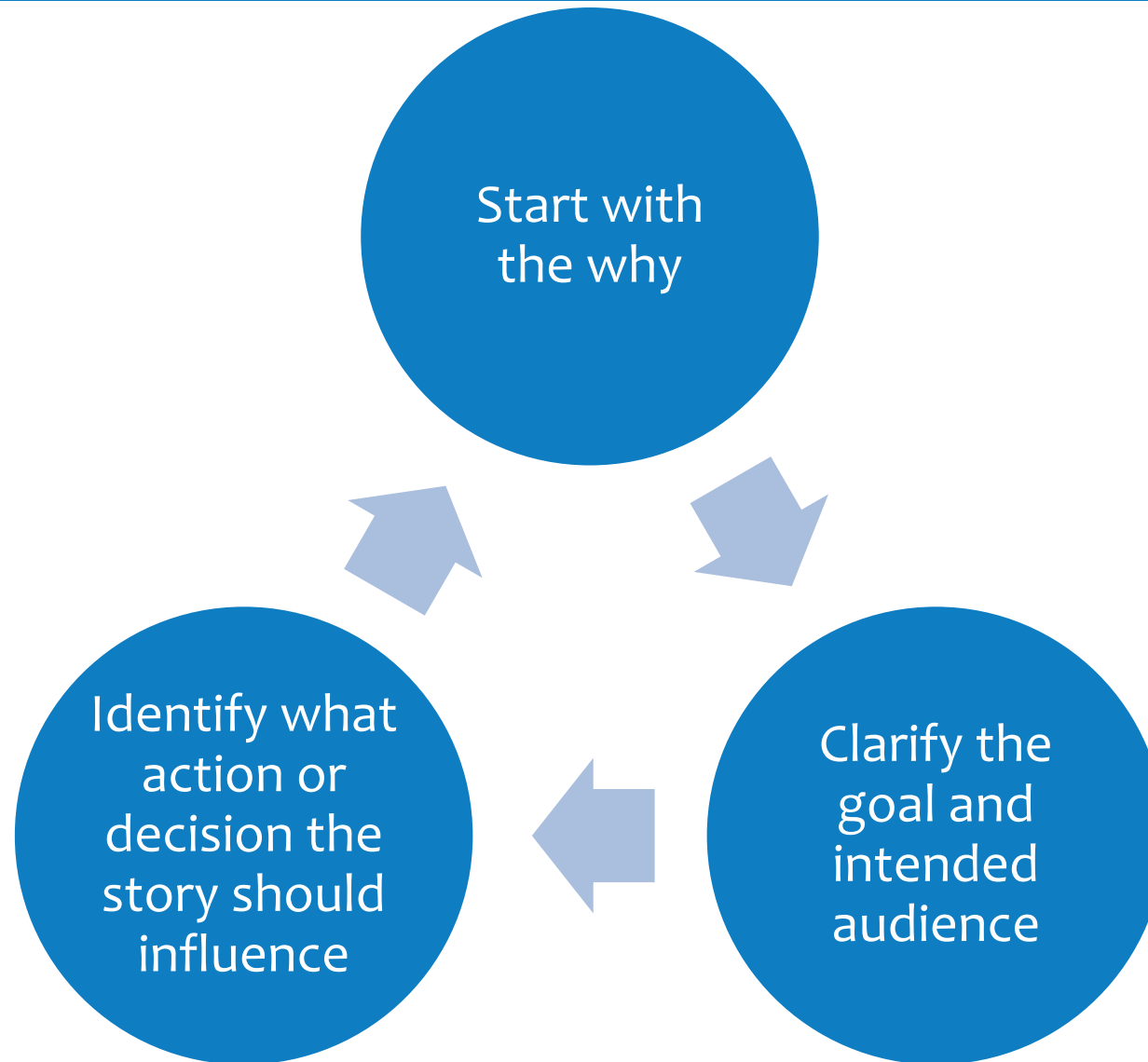


Building The Story



Delivering The Message

GATHERING THE BACKGROUND



DATA DRIVEN STORYTELLING PROCESS

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Collecting the Data



Building The Story



Delivering The Message

DATA FLUENCY =

Confidence to Interpret, Discuss,
and Apply Data Insights to Drive
Better Decisions

COLLECTING THE DATA

Extract: Pulling data out of its source

Example: Pulling data from an ERP system and multiple databases

Transform: Clean the data for usability

Example: Converting a date from 'text' to 'short date'

Load: Store the transformed data in its destination

Example: Importing the cleaned and formatted data into a Power BI dataset



Data Informs, Stories Persuade



Role of Data – Data services as a foundation for informed decision-making, providing essential insights and analytics.

Power of Storytelling – Stories create emotional connections and engage stakeholders, making the communication more relatable and impactful.

Merge Data and Stories – Effective communication combines data and narrative, enhancing persuasion and driven action among stakeholders.

Principles of Effective Data Visualization



Simplicity in Design

Simplicity is essential in data visualization to prevent overwhelming the audience with excessive details.

Clarity of Information

Clarity ensures that the data is easily understood, and the key insights are immediately visible.

Relevance of Data

Relevance means presenting only the necessary data that supports the message being conveyed, avoiding clutter.

Selecting the Right Chart or Visual



Importance of Visualization

Different types of data necessitate unique visualization techniques to effectively convey insights.

Choosing the Right Chart

Understanding when to use each chart type can significantly improve the clarity of your data presentation.

Visual Communication

Effective visual communication enhances data comprehension, making insights more accessible to the audience.

Data Visualization

Translating data into information through visual representations such as graphs, charts, dashboards, and infographics.

Common Visualizations:

Bar and Column Charts: Compare categories

Line Charts: Show trends over time

Pie Charts: Display proportion

Heatmaps: Visualize density or intensity

Dashboards: Combine multiple visuals for real-time insights

Root Cause Analysis

Importance of Root Causes

Identifying root causes is essential for effective problem-solving and improving overall performance in any process or system.

Data Analysis Methods

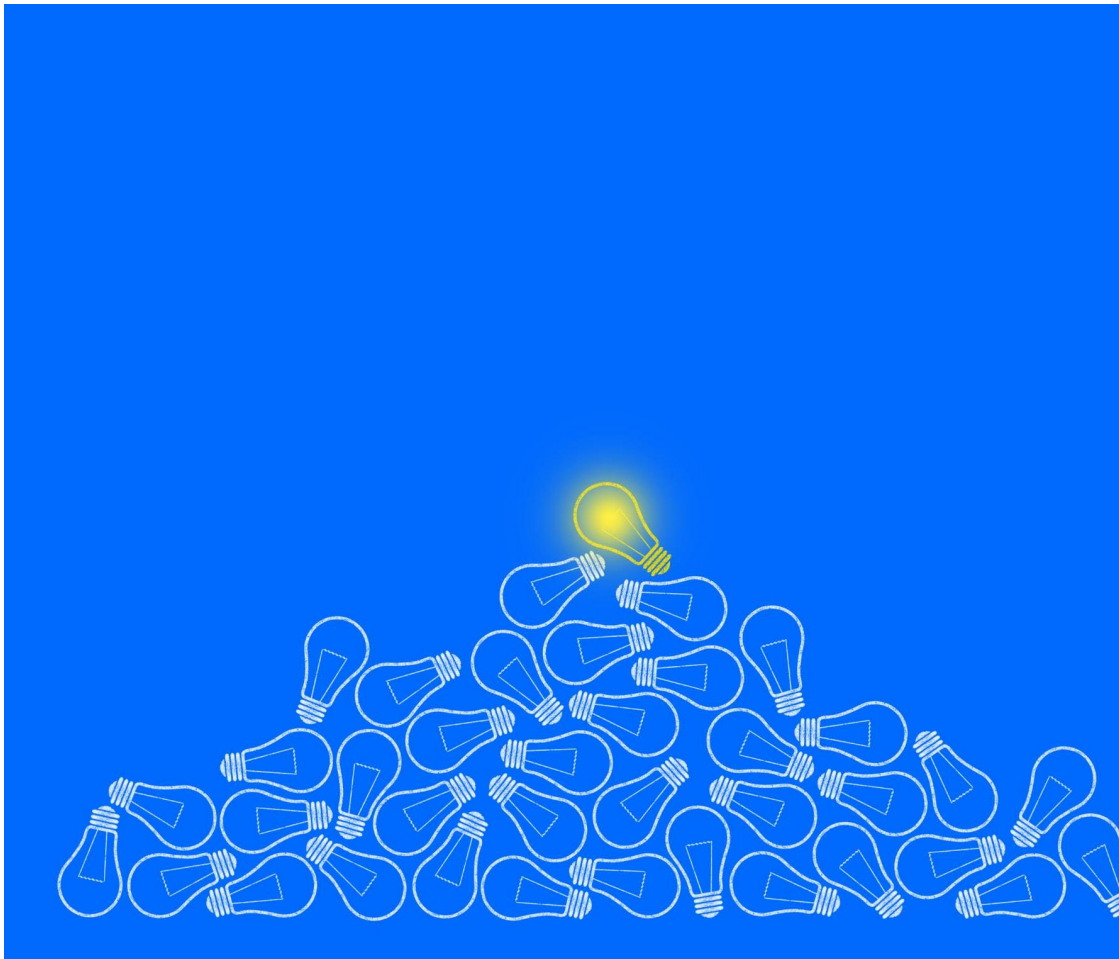
Various methods, such as the 5 Whys and Fishbone Diagram, can help uncover the underlying issues in data analysis.

Addressing Issues

Once root causes are identified, addressing them effectively can lead to significant improvements and prevent recurrence of problems.



Avoiding Data Overload and Emphasizing Insights



Understanding Data Overload

Data overload occurs when excessive information overwhelms the audience, making it difficult to discern key messages.

Focusing on Key Insights

Highlighting key insights helps ensure your message is clear and resonates with your audience.

Simplicity in Presentation

Avoid unnecessary complexity by simplifying visuals and focusing on essential information to engage your audience.

Audience Questions: What? Why? What Now?



Understanding the Data

The first key question is understanding what the data is conveying. Clear communication of data insights is crucial for effective storytelling.

Importance of the Data

Next, it's important to explain why the data matters. Highlighting its relevance helps engage the audience and emphasizes the significance of insights.

Next Steps

Finally, it's essential to outline actionable next steps. Providing clear guidance on what to do next enhances the effectiveness of the story.

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Building The Story



Delivering The Message

Context, Conflict Resolutions Framework

Understanding Context

The context sets the stage for the narrative, providing the necessary background information to engage the audience.

Identifying Conflict

Conflict drives the narrative forward, presenting challenges or obstacles one is facing.

Finding Resolution

Resolution brings closure to the narrative, addressing the conflict and providing a satisfying conclusion for the audience.



Tailoring Insights to Executives, Finance, or Operations

Understanding Audience Needs

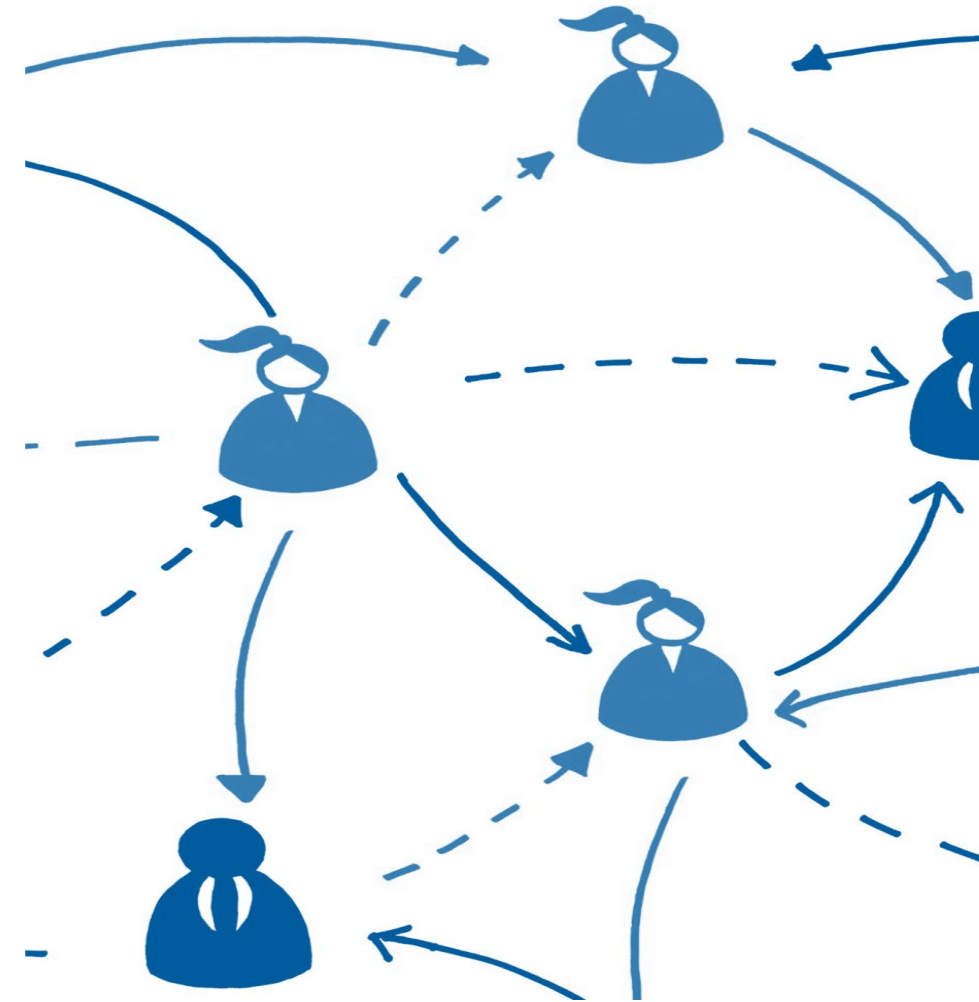
Recognizing the unique needs and priorities of different audiences is essential for effective communication.

Storytelling Techniques

Adapting storytelling techniques can significantly enhance engagement and understanding among executives, finance teams, and operational staff.

Tailoring Communication

Communication styles should be adjusted based on the audience to ensure clarity and impact in conveying information.



Identifying What Matters: Strategic Vs. Operational Views

Strategic View

Characteristics:

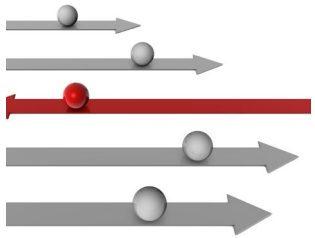
- ❖ Tells the “why it matters” and “what it means for the business”
- ❖ Emphasizes trends, forecasts, and outcomes tied to KPIs or strategy
- ❖ Often spans across departments or business units
- ❖ Less granular, more synthesized
- ❖ Example - Customer churn increased by 4%, concentrated in high-value segments. If the trend continues, we risk losing \$2M annually. We recommend a retention program targeting top-tier clients to protect future revenue.

Operational View

Characteristics:

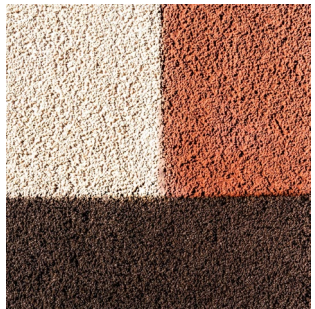
- ❖ Tells the “what happened” and “how to fix or adjust”
- ❖ Drills into causes, process gaps, or team-level performance
- ❖ Highly detailed and tactical
- ❖ Supports immediate decision-making
- ❖ Example - Churn increased among users who submitted support tickets and didn't receive a response within 48 hours. The resolution rate dropped below SLA in Q2. We'll retrain Tier 1 agents and reassign complex cases to reduce queue time.

Storytelling Arc: Change over Time, Comparison, Cause-Effect



Change Over Time

This arc focuses on the evolution of a subject, showcasing its development and transformations across different periods.



Comparison Arc

A comparison arc highlights the similarities and differences between two or more subjects, helping to illustrate contrasts effectively.



Cause-Effect Relationships

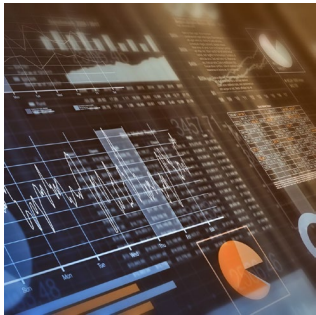
This arc illustrates the relationship between events, showing how one event leads to another, helping to clarify complex ideas.

Framing the Message to Drive Action



Impact of Message Framing

The way you frame your message can greatly influence how it is received and understood by your audience.



Highlighting Data Implications

Emphasizing the implications of your data can make your message more compelling and relevant to your audience.



Suggesting Clear Actions

Providing clear, actionable steps alongside your message increases the chances of achieving the desired outcomes.

Removing Biases – Focus on Clarity, Relevance, and Balance

Examples:

Biased: “We all know remote workers are less productive than in-office employees.”

Unbiased & Engaging: “Some studies show variations in productivity between remote and in-office employees. Let’s look at the data and consider what might work best for our teams.”

Biased: “Employees just don’t care like they used to.”

Unbiased & Engaging: “Employee engagement scores have changed. What factors could be influencing motivations and how might we address them?”

What is the “So What?”

It’s the key takeaway – it answers:

- ❖ Why should the audience care?
- ❖ What does this mean for the organization?
- ❖ What action, risk, or opportunity is emerging?

Think of the “So What? as:

- ❖ The punchline to your story arc
- ❖ The bridge between insight and decision/
- ❖ The anchor that makes data relevant to strategy

“So What?” Starters:

This matters because...

The key takeaway for the business is...

If this trend continues, we will...

This insight highlights a risk/opportunity to...

To capitalize on this, we should...

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Framing Insights, Not Just Data

Importance of Framing

Framing insights effectively enhances their value and significance, making them more impactful for the audience.

Driving Engagement

Well-framed insights can significantly boost audience engagement, encouraging further discussion and exploration.

Enhancing Understanding

Properly positioned insights facilitate better understanding, enabling audiences to grasp complex concepts more easily.



DELIVERING THE MESSAGE

Confidence

- Strong delivery enhances credibility and keeps the audience engaged.

Tone

- The right tone conveys emotion and sets the mood for the message.

Pacing

- Controlled pacing improves understanding and maintains attention

Clarity

- Clear articulation ensures ideas are understood and remembered

Ending with a Call to Action



Importance of Strong Conclusion

Clear Call to Action

Encouraging Audience Engagement

CONCLUSION

Power of Data Storytelling - Data storytelling transforms insights into impactful narratives that resonate with audiences, facilitating better understanding.

Mastering Your Audience - Understanding your audience is crucial for tailoring data narratives that effectively communicate the insights they need.

Building the Narrative - Tailoring Insights to Executives, Finance, or Operations.

Effective Visualization - Utilizing visuals in data storytelling enhances comprehension and retention of important insights among the audience.

Delivering the message with confidence - Confidence in delivery enhances the effectiveness of your story. Paying attention to tone, pacing, and clarity helps make your presentation compelling and persuasive.

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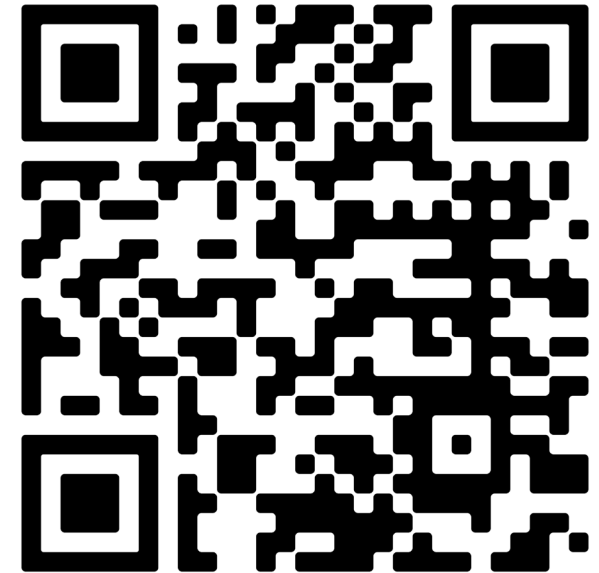
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