

## UNLOCKING THE POWER OF ANALYTICS

## Narrative Dashboards

How to Create it Like a Pro

#### Introduction

In today's digital era, the ability to effectively analyze and communicate data is more crucial than ever. **Companies rely on accurate and timely insights to make informed decisions that drive growth and innovation.** However, the real challenge lies not only in collecting and analyzing data but in telling a compelling story that transforms those data into concrete actions that impact business outcomes.

This white paper is designed to help professionals and leaders understand how to create narrative dashboards that not only present data but tell a "meaningful" and actionable story. We will explore the differences between analysis and reporting and how to bridge the context gap that often separates data analysts from their audiences. Our goal is to provide tools and techniques that facilitate the creation of reports that resonate with their audience, guiding them in the process of making informed and strategic decisions. I hope this document proves useful on your journey toward mastery in data analytics.





## As analytics professionals, our mission is to simplify decision-making

We must present information in a straightforward, time-efficient, and clear manner. Our goal is to eliminate confusion and ensure that the data tells a compelling story.

The Difference Between Analyzing and Reporting

The Context Gap

3 Introducing Meta-Analytics Dashboards



## Analyzing and Reporting What are their differences?

## Analyzing Data

## BUILDING CONTEXT AND INSIGHTS



- Diving Into the Data
- Questions and Answers
- Personal Information Context
- Challenges in Analysis

### Unraveling the DNA of Data: How to Create and Convey a Personal Information Context

#### Diving Into the Data

Analyzing data involves a thorough examination of raw information to extract meaningful insights. This process goes beyond simply looking at numbers; it's about understanding the underlying patterns, trends, and anomalies that can inform decision-making. Analysts often start with a broad question and progressively narrow their focus through a series of specific inquiries. This iterative process helps refine understanding of the data and uncover actionable insights.

THIS ITERATIVE PROCESS HELPS REFINE UNDERSTANDING DATA AND UNCOVER ACTIONABLE INSIGHTS.



#### Questions and Answers: The Analytical Journey

At the heart of data analysis is a cycle of questions and answers. An analyst might begin with a high-level question like, "Why did sales increase last quarter?" This broad question is broken down into more specific ones: "Which products contributed most to the sales increase?" "Which regions performed best?" "What external factors might have influenced these sales?" Each question leads to data exploration and new inquiries, gradually building a comprehensive picture.



#### Challenges in Analysis

One of the main challenges in analysis is the volume and complexity of data. Analysts must be skilled in data management: cleaning, transforming, and organizing data so that it can be effectively analyzed. They also need to be proficient in using analytical tools and techniques, ranging from basic statistical methods to advanced machine learning algorithms. Additionally, they must possess critical thinking skills to correctly interpret the results and creativity to explore different angles.

#### Personal Information Context (P.I.C.)

Through this analytical journey, the analyst builds what can be referred to as Personal Information Context (P.I.C.). This context is a nuanced understanding of the data, enriched by the analyst's domain knowledge, experience, and insights gained during the analysis. P.I.C. includes the reasoning behind observed trends, the relevance of certain data points, and the connections between various pieces of information. It's a mental model that helps the analyst make sense of the data holistically.

## Reporting Data

# COMMUNICATING INSIGHTS

- Purpose of Reports
- Simplifying Complex Data
- Bridging the Context Gap
- Designing for the Audience
- Reporting Tools and Techniques

#### **Purpose of Reports**

Reporting, on the other hand, is about communicating the insights derived from data analysis to stakeholders. The goal is to present data in a clear, concise, and actionable way. Reports can take various forms, from written documents and presentations to dashboards and visualizations. Regardless of the format, the objective remains the same: to inform and guide decision-making.

#### **Simplifying Complex Data**

Effective reporting requires the ability to distill complex data into key points. This involves selecting the most relevant data, highlighting significant trends, and providing context for the findings. Unlike analysis, which thrives on detail and complexity, reporting demands simplicity and clarity. The challenge is to present the essential information without overwhelming the audience with too many details.



#### Bridging the Context Gap

A critical aspect of reporting is bridging the context gap. While the analyst has a deep understanding of the data (P.I.C.), the report's audience does not. **Therefore, the report must include enough context and background information to make the findings understandable and actionable.** This often means translating technical details into plain language, using visual aids to illustrate points, and providing narrative explanations that connect the dots.

## From the Data Maze to the Moment of Truth: How to Tell the Story Behind the Insights and Guide Decisions

#### Reporting Tools and Techniques

Various tools and techniques are available for reporting. Data visualization tools like Tableau, Google Locker Studio and Power Bl allow for the creation of interactive dashboards that can make data exploration more intuitive. Presentation software like PowerPoint can be used to create compelling visual narratives. Written reports may include a combination of text, tables, and charts to convey information. The choice of tools and techniques should align with the report's objectives and the preferences of its audience.

#### Designing for the Audience

Effective reports are designed for their audience. This means understanding who the stakeholders are, what their priorities and concerns are, and how they prefer to receive information. For example, a report for senior executives might focus on high-level insights and strategic implications, while a report for operational managers might delve into granular details and tactical recommendations. Knowing the audience helps ensure the report is relevant and impactful.





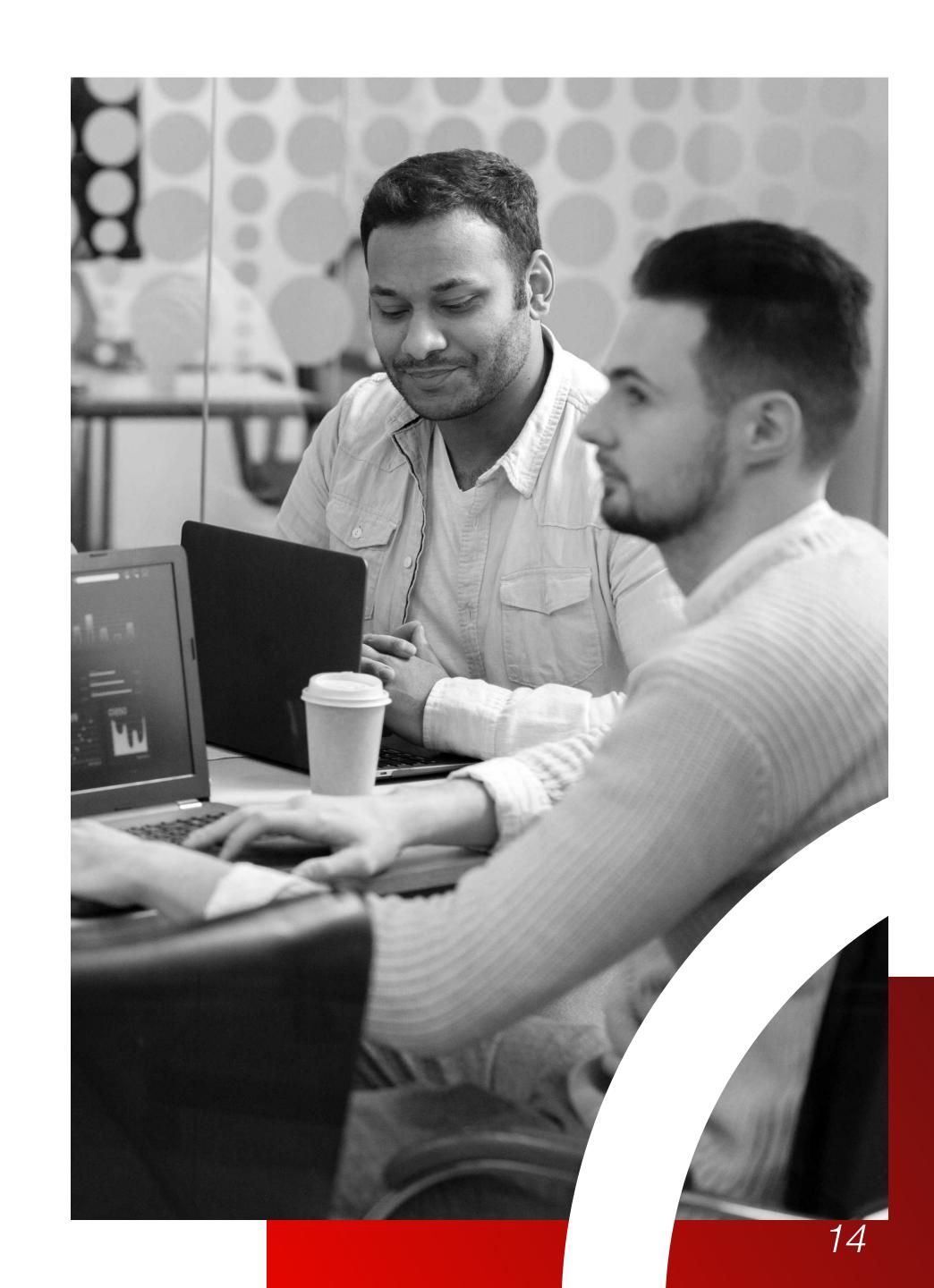
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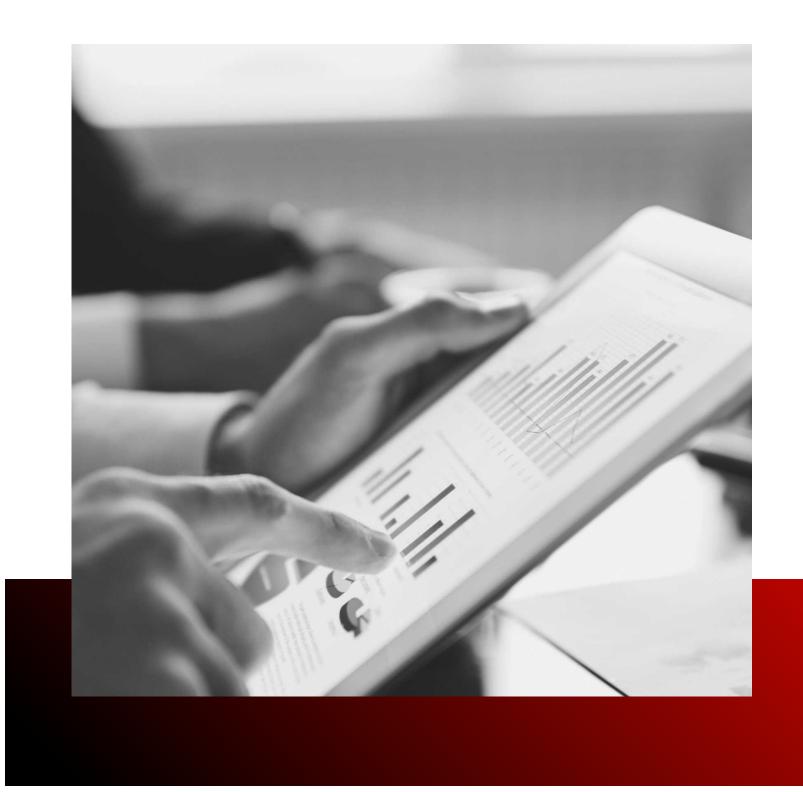
# THE IMPORTANCE OF CONTEXT AND NARRATIVE

- Challenges in Analysis
- The Challenge of Context Gaps
- The Power of Narrative
- Components of a dashboard

# Without the analyst's context, report recipients may fill in the gaps with their own interpretations, leading to misunderstandings

The role of the data analyst is not only to discover insights from the data but also to effectively communicate those insights in a clear and actionable way. This is where storytelling becomes crucial.





Report recipients, lacking this detailed context, may draw their own conclusions based on incomplete information.

These personal inferences can lead to decisions that are not aligned with the true insights from the data, resulting in potential risks and inefficiencies for the organization.

#### The Power of Narrative

To close this gap, analysts must master the art of storytelling. A well-crafted narrative can guide the audience through the data, highlighting key insights and explaining the significance of each finding. This narrative approach helps ensure that the data is interpreted correctly and that the desired message is conveyed.

## The Challenge of Context Gaps

When analysts work with data, they develop a deep understanding of the nuances and underlying factors that influence the numbers. This Personal Information Context (P.I.C.) includes insights into why certain trends occur, the relevance of specific data points, and how different pieces of information are interconnected. However, when this data is compiled into a report, much of this context can be lost.

AN EFFECTIVE NARRATIVE TRANSFORMS DATA INTO INFORMED AND ACTIONABLE DECISIONS.



# COMPONENTS OF AN EFFECTIVE NARRATIVE IN DATA REPORTING

## Clear Objectives Start with a clear statement of who

Start with a clear statement of what the report aims to achieve. This can be related to business goals like increasing sales, reducing churn, or improving customer satisfaction. Tying the data to these tangible goals helps focus the narrative and make it relevant to the audience.

### Contextual Background

Provide the necessary background information to help the audience understand the context of the data. This might include historical trends, market conditions, or internal factors that influence the data.

### Logical Flow

Organize the report in a logical sequence that mirrors the structure of a story: setting the stage, presenting the data (the plot), identifying problems or opportunities (the conflict), and suggesting actions (the resolution).

#### Visual Aids

Use visualizations like charts, tables, and infographics to illustrate key points. Visual aids can make complex data more accessible and easier to grasp at a glance.

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#### Focused Insights

Highlight the most important insights and explain why they matter. Avoid overwhelming the audience with too much information; instead, focus on the data most relevant to the report's objectives.

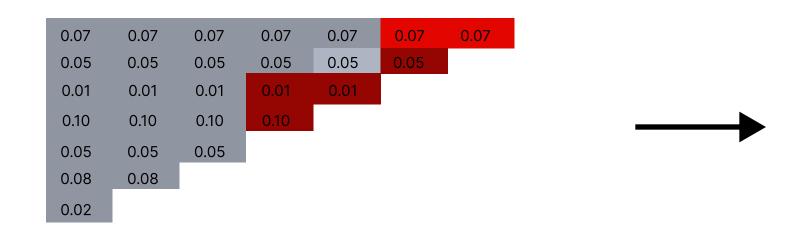


#### Actionable Recommendations

Conclude with clear, actionable recommendations based on the data. This helps guide the audience on next steps and ensures that the insights are used to inform decision-making.

#### **OBJECTIVE: reduce churn**

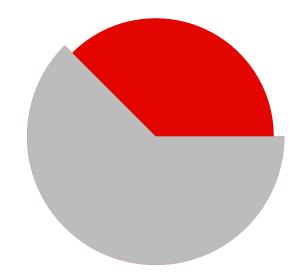
### How are we doing on retention?



Note: Retention is really bad, 96% of clients are leaving us in less than a year.

SOURCE: CRM BASED COHOR ANALYSIS

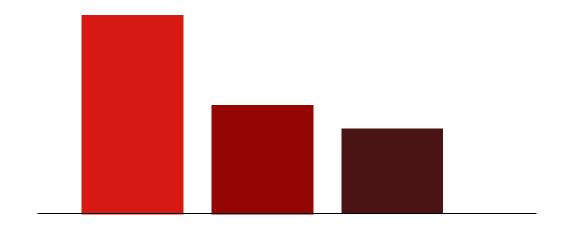
2 Why are clients leaving the company?



Note: More than 50% is related to consumer experience.

SOURCE: SUPERVISED MACHIN "BINARY LOGISTICS REGRETION"

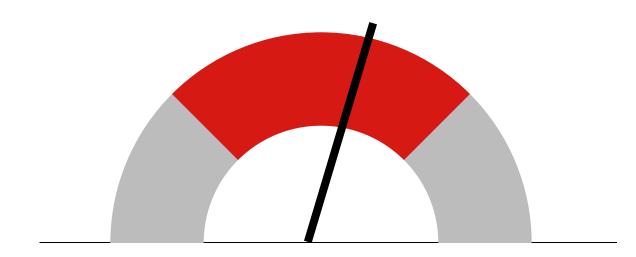
3 What's the solution to this problem?



Note: Redesign processes, team training re-do KPIs for our team.

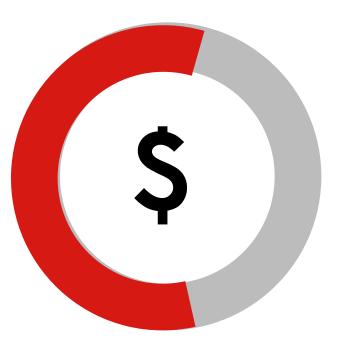
SOURCE: ASSESSMENT ON THE PREVIOUSLY MENTIONED PROCESSES

#### Invest in retention or look for new clients?



Note: A new client cost 2.9 times more than retaining our current ones.

SOURCE: CRM NON SUPERVISED MACHINE LEARNING



Note: New customers spend in average 1/4 of what clients spend.

SOURCE: CRM, WE TOOK THE MAX AMOUNT PER TICKET

# By incorporating these elements into their reports, analysts can create powerful stories that resonate with their audience and lead to informed decisions.

In essence, narratives in data reporting transform raw data into a meaningful story that bridges the context gap and minimizes the risk of misinterpretation.

#### The Typical Dashboard

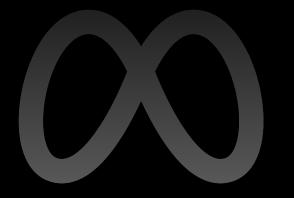
Consider a standard dashboard: At first glance, it's not always clear what story the data is telling. While operational staff may understand it due to their daily involvement, leaders and cross-departmental stakeholders may struggle without additional context.





## Meta-Analytic Dashboards

## HERE'S HOW THEY ARE CREATED



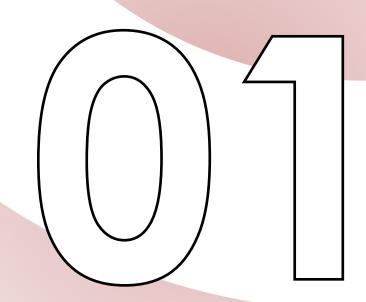
- Objective
- Dashboard Certainty
- Story Flow
- Story Widget Title
- Widget
- Note
- Source

### Objective

## The objective is the fundamental element of your dashboard.

Unlike traditional dashboards that might simply state the purpose of the dashboard itself, Meta-Analytic Dashboards should clearly define the overall business objective that the dashboard supports.





#### DETAILED STEPS

#### Specific and Tangible

Ensure that the objective is specific and tangible. For example, instead of saying "increase value," specify "reduce churn" or "increase sales."

#### Easy to Understand

Make the objective easy to understand for anyone who reads the dashboard. Avoid jargon and use straightforward language.

#### **Linked to Company Goals**

Clearly explain how this objective relates to the broader company goals. For example, if the objective is to reduce churn, describe how retaining customers impacts the company's revenue and longterm sustainability.



### **Dashboard Certainty**

## This metric evaluates how reliable and trustworthy the dashboard

is based on user feedback. It helps ensure that the dashboard provides actionable insights that users can trust to make decisions.

#### DETAILED STEPS

#### **User Feedback**

Collect feedback from users each time they interact with the dashboard. Ask two key questions: "Did you make a decision based on this dashboard?" and "Was the insight correct?".

#### **Calculate Certainty**

Use the responses to calculate a certainty score. For example, if 100 users said they made a decision and 90 of those decisions were correct, the dashboard's certainty would be 90%.

#### **Continuous Improvement**

Use the certainty score to identify areas for improvement. A low score indicates that the dashboard may need adjustments to improve its accuracy and reliability.

## **Story Flow**

#### The story flow is the structured narrative that the dashboard follows

It's like the plot of a novel, guiding users through the data in a logical and compelling way.

#### DETAILED STEPS

#### Plan the Narrative

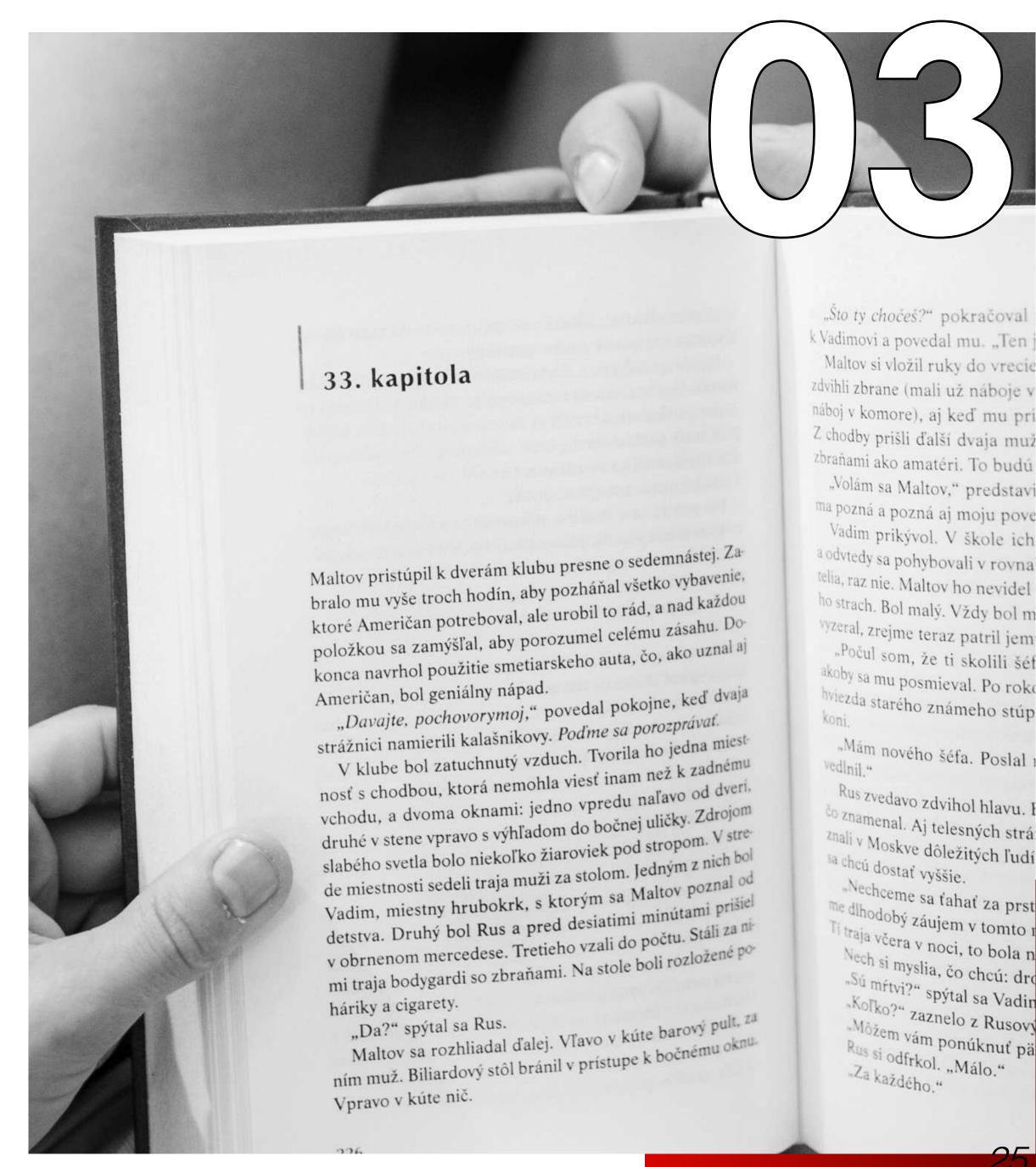
Outline the story you want the dashboard to tell. Identify the key points: the setting (current state), the plot (data trends), the conflict (problems or opportunities), and the resolution (actions to take).

#### Create a Flow

Ensure that the dashboard's design follows this narrative flow. Each section should naturally lead to the next, helping users understand the context and implications of the data.

#### **Flexibility**

Design the story flow so that it works regardless of the data outputs. The narrative should remain relevant and informative even when the data changes.



zdvihli zbrane (mali už náboje v náboj v komore), aj keď mu pri Z chodby prišli ďalší dvaja muž zbraňami ako amatéri. To budú "Volám sa Maltov," predstavi ma pozná a pozná aj moju pove Vadim prikývol. V škole ich a odvtedy sa pohybovali v rovna

"Što ty chočeš?" pokračoval

telia, raz nie. Maltov ho nevidel ho strach. Bol malý. Vždy bol m vyzeral, zrejme teraz patril jem "Počul som, že ti skolili šét akoby sa mu posmieval. Po roko hviezda starého známeho stúp koni.

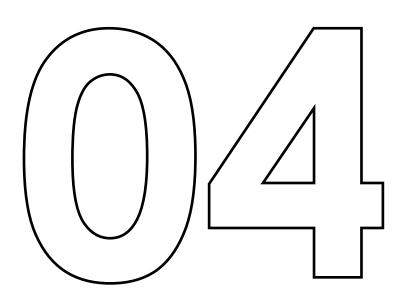
"Mám nového šéfa. Poslal vedlnil "

Rus zvedavo zdvihol hlavu. čo znamenal. Aj telesných strá znali v Moskve dôležitých ľudí sa chcú dostať vyššie.

"Nechceme sa ťahať za prst me dlhodobý záujem v tomto r Ti traja včera v noci, to bola n Nech si myslia, čo chcú: dro "Sú mŕtvi?" spýtal sa Vadin -Koľko?" zaznelo z Rusovy «Môžem vám ponúknuť pä Rus si odfrkol. "Málo." "Za každého."







### Story Widget Title

## Each widget in the dashboard should have a title that poses a specific question

clarifying which aspect of the data it addresses.

DETAILED STEPS

#### **Question-Based Titles**

Instead of generic titles like "Sales by Month," use questions like "How did our sales perform this month?".

#### Clarity and Relevance

Ensure that the questions are clear and directly relevant to the dashboard's objectives and goals. This helps users quickly understand the purpose of each widget.

#### **Encourage Insight**

The question format encourages users to think critically about the data and its implications.

## **Story Widget**

## Widgets are the visual representations of your data

They should be designed to clearly answer the questions posed by their titles.





#### DETAILED STEPS

#### Data Visualization

Choose the appropriate type of visualization for the data. For example, use line charts for trends over time, bar charts for comparisons, and pie charts for proportions.

#### Test with Non-Experts

Share the dashboard with people unfamiliar with the data to ensure that the widgets are easily understandable.

#### **User Feedback**

Collect feedback to improve the clarity and effectiveness of the widgets.

#### Note

## Notes provide additional context and help build the narrative.

They are short, informative messages that enhance the understanding of the data.



#### Editable Field

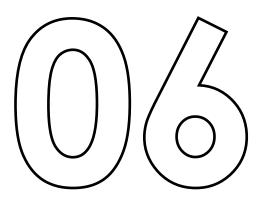
Include an editable field where analysts can add context. This can be used to explain anomalies, provide background information, or highlight key insights.

#### **Brevity and Clarity**

Keep notes concise, similar to a tweet. They should connect the various parts of the story without overwhelming the user with information.

#### Dynamic Updates

Ensure that notes can be easily updated as new data comes in and the story evolves.



#### Source

## Each widget should reference its data source

providing a link or citation for further analysis if needed.

#### DETAILED STEPS

#### Transparency

Clearly indicate where the data comes from. This adds credibility and allows users to verify the information.

#### Link to Sources

Whenever possible, include links to the original data sources so users can dive deeper if needed.

#### Consistency

Ensure that all sources are consistently referenced throughout the dashboard.

# TURNING INSIGHTS INTO ACTION

By following these steps, you will create dashboards that not only present data but tell a compelling story, driving informed decisions and impactful actions. Harness the power of storytelling in your dashboards to elevate your data reports and truly become a master of analytics.



## UNLOCKING THE POWER OF ANALYTICS

# Thank you so much!

silvana.schiraldi@csalatam.com

**S** csalatam.com