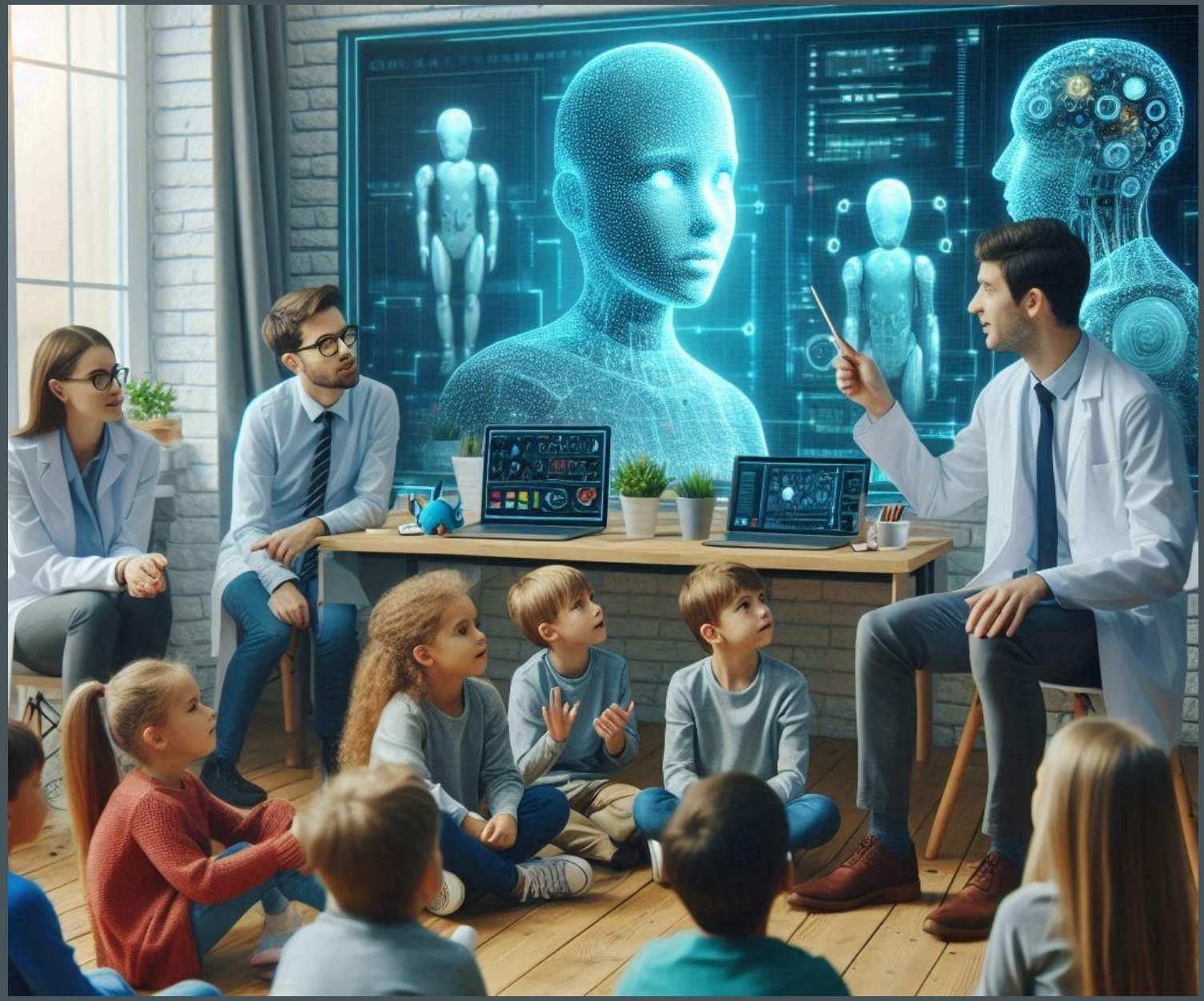
DATA STORYTELLING WITH TABLEAU BUSINESS INTELLIGENCE: PART 1 INTRO



LEARNING OBJECTIVES

- By the end of this lesson, students will be able to:
- Explain the purpose and value of Business Intelligence (BI) in modern organizations.
- Identify key BI tools and compare their strengths and limitations.
- Use Tableau to connect to data sources, create visualizations, and design dashboards.
- Interpret data visualizations to support business decision-making.
- Present insights derived from Tableau dashboards.

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WHAT IS BUSINESS INTELLIGENCE

- Business Intelligence (BI) refers to the **processes, technologies, and tools** that organizations use to **collect, integrate, analyze, and present business data** in order to make **informed, data-driven decisions.**

COMPONENTS OF A BUSINESS INTELLIGENCE PLATFORM

- **Data Sources** – Systems where raw data originates (e.g., sales databases, ERP systems, cloud apps).
- **Data Integration (ETL)** – Extracting, transforming, and loading data into a centralized location like a **data warehouse**.
- **Data Storage** – Repositories such as **data warehouses** or **data lakes** that store structured and unstructured data.
- **Analytics & Reporting Tools** – Tools like **Tableau**, **Power BI**, and **Qlik Sense** used to visualize data and create dashboards.
- **Decision-Making** – Business leaders interpret dashboards and reports to guide actions and strategy.

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COMPARISON OF BUSINESS INTELLIGENCE TOOLS

BI Tool	Vendor	Deployment	Key Strengths	Limitations	Best Use Case
Tableau	Salesforce	Cloud / Desktop	Powerful visualizations, intuitive drag-and-drop interface, strong community	Higher licensing costs, can be complex for beginners	Data visualization and storytelling for medium-to-large enterprises
Power BI	Microsoft	Cloud / Desktop	Seamless Microsoft integration, cost-effective, easy DAX language	Limited non-Microsoft integrations, can slow down with large data sets	Corporate reporting within Microsoft ecosystem
Qlik Sense	Qlik	Cloud / On-Prem	Associative data model, strong self-service discovery, in-memory analytics	Steeper learning curve, less intuitive UI	Ad-hoc analysis and data discovery for technical users
Looker	Google	Cloud	Embedded analytics, flexible data modeling via LookML, modern web-based design	Requires knowledge of LookML, limited offline functionality	Embedding BI in SaaS platforms or web apps
QuickSight	AWS	Cloud	Serverless, scalable, integrated with AWS ecosystem, low maintenance	Limited advanced analytics and visualization options	Cloud-native analytics for AWS-centric organizations

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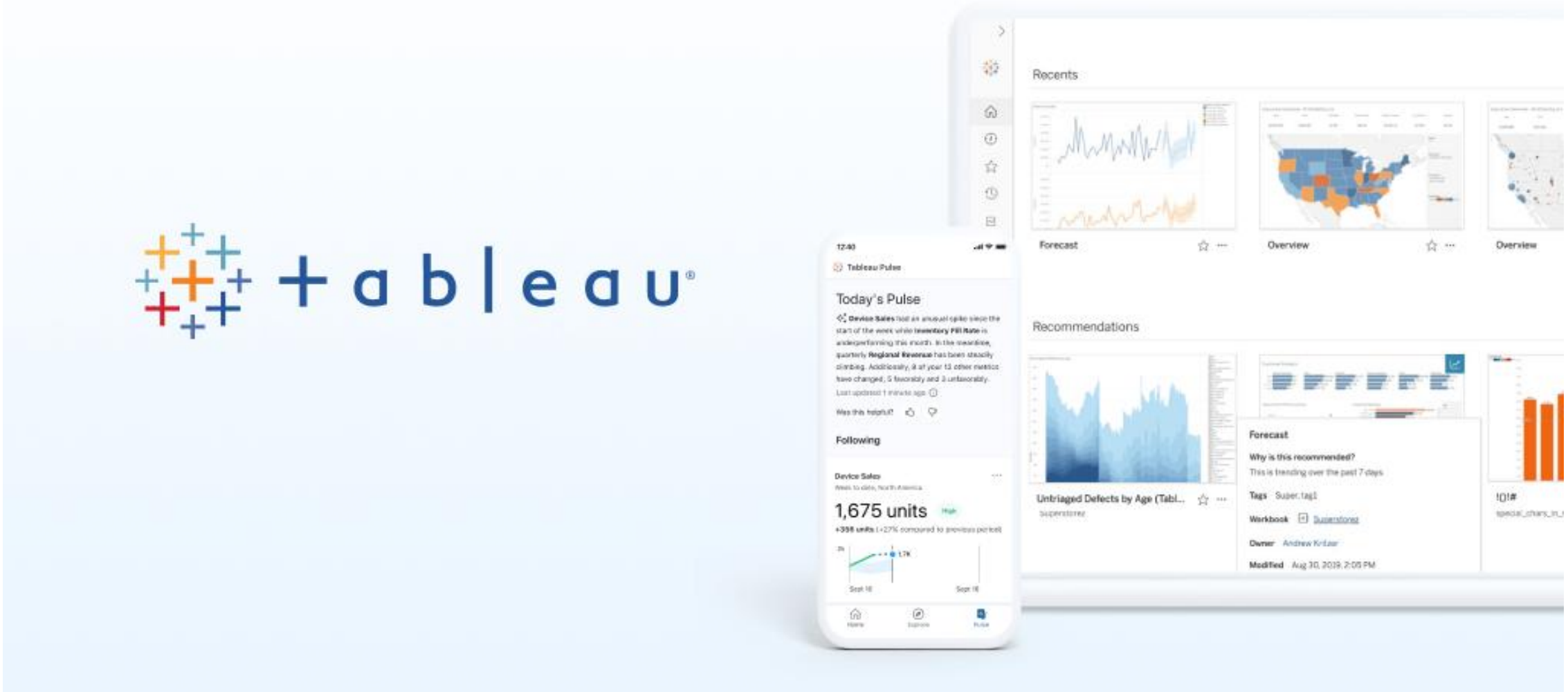
WHAT IS DATA STORYTELLING?

- Data storytelling is the process of translating data analysis into an easily understandable narrative. It combines three key elements:
  1. **Data:** The raw facts, figures, and insights derived from your BI tools.
  2. **Narrative:** The plot, characters, and context that give meaning to the data.
  3. **Visuals:** Charts, graphs, dashboards, and other graphical representations that make the data accessible and engaging.


Recents
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Following
Device Sales
1,675 units
Forecast
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KPI
STATIC (3)
COMPARISON (8)
TREND (14)
CONTRIBUTION
STATIC(3)
COMPARE(4)
TREND(3)
RANKING
STATIC (3)
COMPARISON (3)
TREND (2)
AMOUNT (5)
FLOW (9)
TIME (7)
RELATIONSHIP (10)
DISTRIBUTION (6)
GROUPING (5)
TEXT (2)
MAP (8)
EXTRA (2)
★1=SIMPLE ★2=MODERATE ★3=DIFFICULT ★4=ADVANCED ★5=MASTER
How-to-Build / Credits
KPI VALUE - STATIC【KPI値 - 単一】
Gauge1 ★2
Gauge2 ★3
Number ★1
95%
475
95%
+75
KPI VALUE - COMPARE【KPI値-比較】
Radial Gauge ★3
Circular Radial ★4
Radial Bar ★5
Likert Scale ★3
Scale ★2
Radar Chart ★3
Double Bar ★1
Bullet ★1
KPI VALUE - TREND【KPI値-推移】
Bar Chart ★1
Bar & Line ★2
Bar & Shape ★2
Bold Line ★1
Gap Trend ★3
Waterfall ★3
Lollipop ★2
Spiral ★3
Line Chart ★1
Line Cumu ★1
Align Start ★3
Sparklines ★1
Multiple Chart ★1
Forecast ★1
CONTRIBUTION - STATIC【貢献 - 単一】
Pie Chart ★1
Donut Chart ★2
Waffle ★2
CONTRIBUTION - COMPARE【貢献 - 比較】
Tree ★1
Bubble ★1
Growth Ring ★2
Contri. Bar ★1
Butterfly ★2
CONTRIBUTION - TREND【貢献 - 推移】
Stacked Bar ★1
Area ★1
Stream ★2
FLOW【フロー】
Funnal1 ★2
Funnal2 ★3
Funnel 3 ★2
Snakey ★4
Gantt Chart ★1
Process Flow ★1
Decison Tree ★4
Network ★4
Network2 ★4
RELATIONSHIP【関係性】
Heat Map1 ★1
Heat Map2 ★1
Pereto ★2
RANKING- COMPARE【ランキング-比較】
Ranking Board ★2
1 Kenji
2 Maki
3 Tomomi
Rank-Race ★2
Star Rating ★2
Arrow ★2
Slopegraph ★2
Slopegraph 2 ★3
RANKING- TREND【ランキング-推移】
Bump Chart1 ★2
Bump Chart2 ★2
AMOUNT【量】
Infographic ★2
Stacked Blocks ★2
Parliament ★4
Isotype ★2
TIME【時間】
Timeline ★3
Multi-timeline ★3
Calendar ★2
Clock ★2
Jump Plot ★4
Jump Plot2 ★4
Circular Dot ★3
DISTRIBUTION【分布】
Histrogram ★1
Box Plot ★1
Scatter Plot ★2
Scatter Plot2 ★2
Jitters ★1
Barcode Plot ★1
Correlation ★2
Scatter Plot ★1
Reg-Linear ★1
Reg-Log ★1
Reg-Expo. ★1
Polynomial ★1
GROUPING【グルーピング】
Venn Diagram ★2
Venn Diagram ★3
Sunburst ★4
Quardiant ★2
Clustering ★1
Bubble Plot ★1
TEXT ANALYTICS【テキスト分析】
Word Cloud ★2
gain complex parts breaking logic mathematics analysis substance smaller understanding topic is study the
Word Count ★2
Sentiment Analysis ★4
MAP【地図】
Map - Filled ★1
Map - Symbol ★1
Map - Pie ★2
Map-Custom ★3
Path - Route ★3
Path - Direct ★3
Path - Curve ★4
Path - Curve Multi-line ★4
Store Layout ★4
Shelf Display ★4
Position ★3
EXTRA【特別】
3D Model ★5
Geometric Art - Drawing ★5
TO BE CONTINUED つづく
Shape- Heart ★3

TABLEAU DEMO

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KEY TAKEAWAYS

- BI tools empower data-driven decision-making.
- Tableau enables fast and interactive visual analysis.
- Visualization is not the end — interpretation and communication of insights are critical.
- BI complements AI by making model outputs understandable to business users.

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