

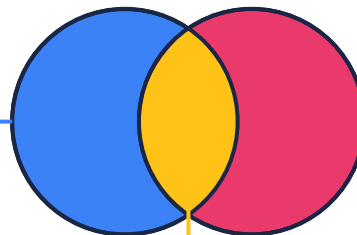
What is a data story?

A data story is a **narrative that leverages data and visualisations** to convey meaningful and insightful messages.

Data stories combine the analytical power of **data analysis** with the persuasive **impact of visualisation**, allowing complex information to be **communicated** in a more **engaging** and **relatable manner**.

In a data story, **data points**, **trends**, and **patterns** are woven into a **coherent narrative** that helps the audience understand the significance of the data.

Data analysis



Visualisation



Data stories

Why do we need data stories?



Spreadsheets



Dashboards

...only tell us **what** is happening.

They don't tell us **why**.

Essentially, **stories make data relevant.**

Storytelling in the context of data and business



Emotional connection

Business decisions aren't solely driven by logic and numbers because **emotions play a role in decision-making**. Stories have the power to evoke emotions and when people can emotionally **connect** with data, they are more likely to **remember** it and be **motivated to take action**.



Humanisation

Stories humanise data. They connect the data to people, whether it's customers, employees, or stakeholders. This human element makes data **more relevant** and **relatable**. It helps decision-makers **understand the impact** of their choices on individuals and communities.



Memorability

Numbers and statistics, while important, are often **forgettable on their own**. Stories **provide context** and **meaning** to these numbers. When data are embedded within a narrative, it becomes easier to remember. People tend to remember stories much better than isolated facts and figures.

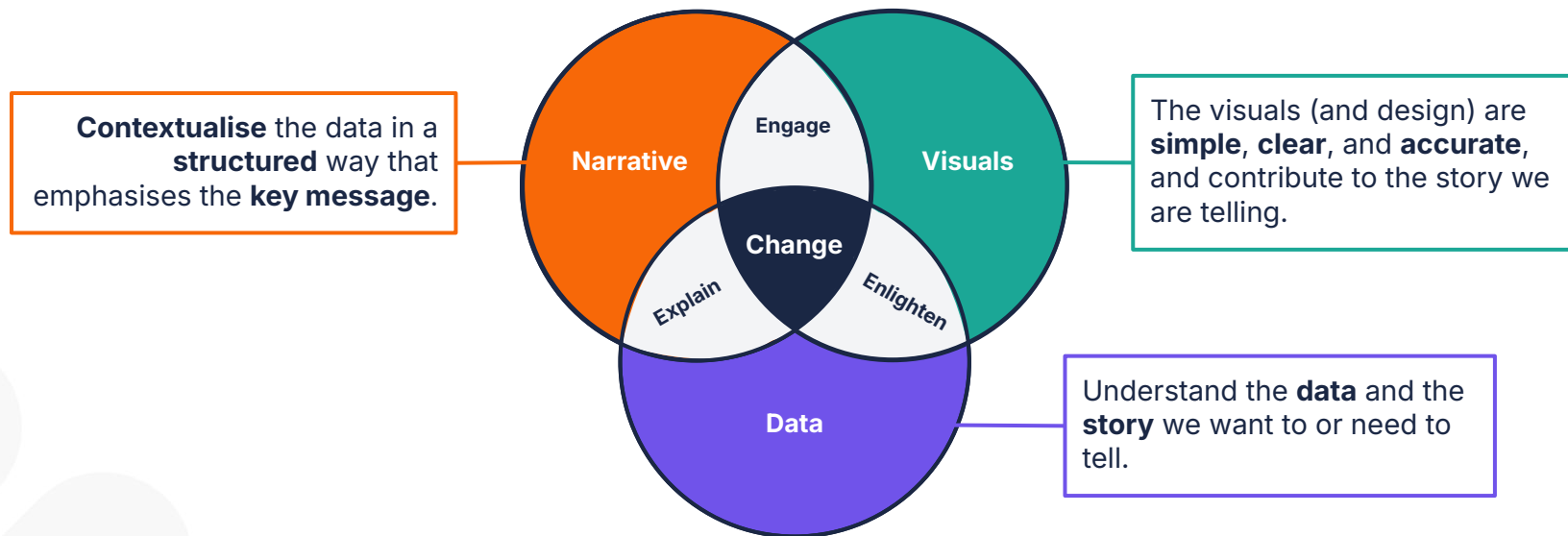


Simplicity

Complex data can be **overwhelming**. Stories **simplify information** by distilling it into a comprehensible narrative. This simplification is especially valuable when communicating with diverse audiences, some of whom may not have a deep understanding of the data.

The key aspect of data stories

Using a compelling **narrative** with **data** and **visuals** can more than explain, engage, or enlighten, but “capture” or persuade an audience or stakeholder to **change their minds**.



The key aspect of data stories

ENGAGE

Narrative + Visuals

When we create engagement, we **draw the audience in**, creating a sense of **curiosity** and **anticipation**. When people are engaged, they are more likely to **explore data further** and **absorb its insights**.

EXPLAIN

Narrative + Data

When we explain data well within a narrative, we transform it from a set of abstract numbers into a story that people can **follow**, ensuring they **grasp the significance** of the information presented.

ENLIGHTEN

Visuals + Data

By transforming data and numbers into **easily digestible representations**, we can convey **complex information** to different audiences and ensure a **deeper understanding** of the information being shared, and the **significance** thereof.

CHANGE

Visuals + Data + Narrative

By presenting data within a narrative framework, we make a **stronger case** for recommendations and **gain buy-in** from decision-makers. Stories can **change perspectives**, **inspire action**, and **influence** stakeholders.

Data in stories

The purpose of data storytelling is to effectively **convey insights** gained from data or to **drive change** using data as evidence. Either way, we need to follow some guidelines to ensure that the data appropriately supports the story.

Establishing trust in the data

We need to describe where data come from, how they were collected, and their reliability. We also need to explain any cleaning, transformation, or aggregation that could influence our insights.

Highlighting insights that matter

We can demonstrate correlation, causal connections, trends and patterns, and outliers and anomalies, but we need to explain why it matters. We can do this by comparing to benchmarks or historical data.

Acknowledging uncertainty

It's important to acknowledge any uncertainties or limitations in the data and/or analysis. We can include the margin of error, missing data, biases, etc. to better quantify the uncertainties of the analysis.

These key considerations can help to **expand the audience's understanding** and **trust of the data and analysis**, making it easier to "convince" them of the story we are telling.

Visuals in data stories

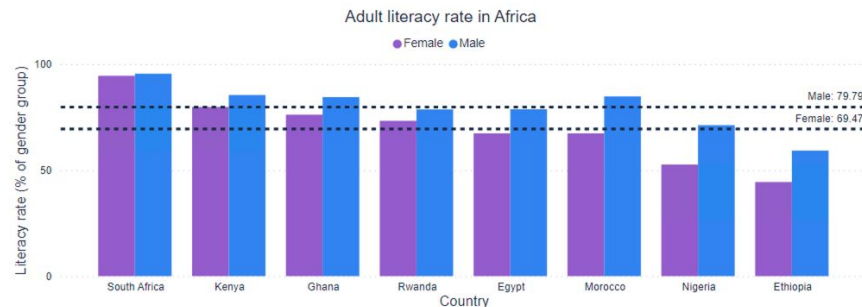
Visualisation helps us **distil data** into **simple** and **digestible representations** of our data. It specifically helps to engage and enlighten our audiences or stakeholders.

Consider this example on the adult literacy rate in Africa. Although the dataset is relatively small, the **visual is still easier to interpret**.

Why visuals in storytelling?

- Visuals make data accessible.
- It allows us (and our audience or stakeholders) to leverage our eyes and brains' ability to detect patterns and digest complex information.
- It provides quick access to massive amounts of data that we may not be able to interpret as-is.

Country	Labor force	Labor force	Unemployed	Unemployed	Literacy rate, adult female	Literacy rate, adult male	Rural population
Egypt	15.123	68.253	15.927	4.992	67.38999939	78.77999878	
Ethiopia	75.027	86.195	5.277	2.911	44.42338181	59.24145889	
Ghana	65.297	72.444	4.048	3.699	76.19000244	84.48999786	
Kenya	72.723	76.058	5.799	5.209	79.84999847	85.48000336	
Morocco	21.436	69.699	12.347	9.924	67.37999725	84.80999756	
Rwanda	48.584	61.756	14.311	11.897	73.30000305	78.69999695	
Nigeria	52.088	65.539	5.489	5.973	52.65647888	71.25570679	
South Africa	50.608	63.565	31.426	28.398	94.53317261	95.54537201	



Visuals in data stories

Effective visualisation not only ensures that data can be **easily interpreted** but also contributes to the **overall impact** of our data storytelling. There are many considerations when visualising data. Some of the **key considerations** include:

Clarity

Avoid clutter and unnecessary distractions in visualisations and clearly label visualisations.

Emphasis

Use visuals to emphasise key insights and trends by using annotations, specific colours, etc.

Visualisation type

Ensure that the choice of visual is appropriate and conveys the message.

Simplicity

Keep visuals as simple as possible by avoiding too many variables or multiple axes scales.

Comparison

Use visualisations to compare different samples, time periods, or categories.

Visual design principles

Apply design principles related to concepts such as colour choice, contrast, and alignment.

Accessibility

Ensure accessibility has been considered by being intentional with colour choices and font size.

Narrative

As data professionals, crafting an impactful narrative often feels like the hardest part of storytelling. However, there are some **key considerations** that can help:

Impactful **title** or **catchphrase**

Use a **succinct** title or catchphrase that will **grab the audience's attention** while providing enough **information** on the context of the story being told.

Clear **objective**

Define a clear objective for the story. **What message** do we want to convey, and **what actions** or **decisions** do we aim to inspire?

The **audience**

Know the audience's level of **data literacy**, **interest**, and **needs**, and tailor the story to it.

Narrative **structure**

Ensure that the story is **well structured** by including an **introduction**, **development** (middle), and **conclusion** to effectively guide and engage the audience.

Narrative

Engaging introduction

Craft an opening that immediately **grabs the audience's interest**, compelling them to delve into the story.

Establish context

Ensure the audience understands the **context** from the start by introducing the **subject matter**, the **problem** or **question** being addressed, and the **relevance of the data**.

Thematic thread

Weave a thematic thread or **central message** throughout the narrative to provide a **unifying element** that ties the story together.

Maintain consistency

Maintain consistency in the **storytelling style**, **voice**, and **message** throughout the narrative to ensure clarity and prevent confusing the audience.

Call to action

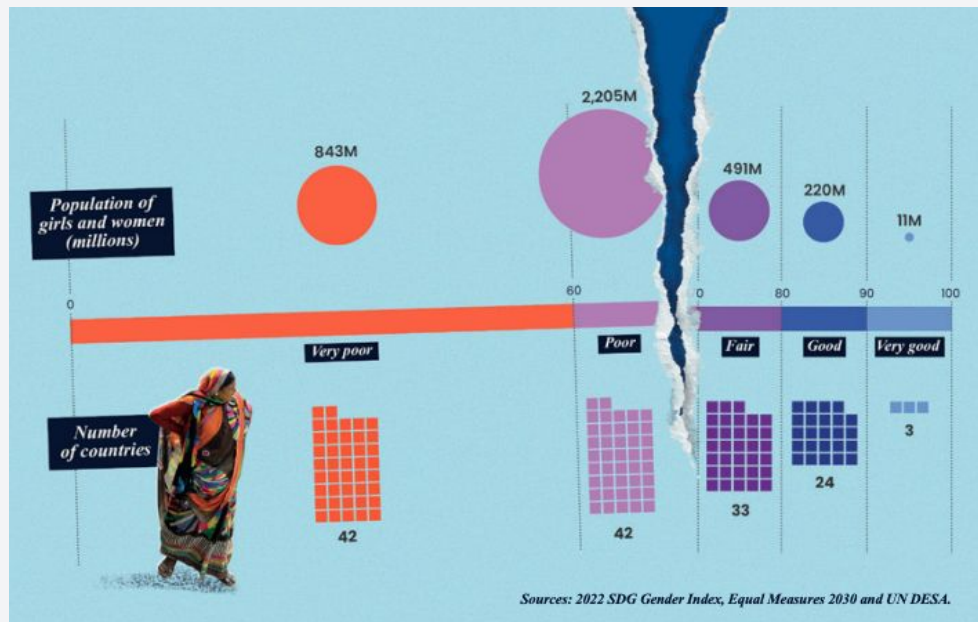
Conclude the narrative effectively by delivering a **clear** and **compelling call to action** or a **key takeaway** that inspires the audience to take action or make well-informed decisions.

Real-world example of powerful data stories

Extract from **The 2022 Equal Measures 2030 (EM2030) SDG Gender Index** report:

The state of global gender equality in 2020: still too many girls and women left behind

While it is encouraging that many countries have been making progress on gender equality – albeit too slowly – in 2020, the world still had more than three billion girls and women living in countries with scores that were ‘poor’ or ‘very poor’ for gender equality. The Index rankings show that richer countries tend to have higher scores on gender equality. However, it was found that a country’s Index score cannot be explained by its national income or economic status alone.



Mastering data stories

Even though we now know what makes a great data story and we have several key considerations to take into account, how do we **become masterful data storytellers**?

Consume **great data stories**

Find data stories that inspire us and consider whether they have the key components of effective data stories. **Learn from others** by consuming as many data stories as possible.

Practise crafting data stories

Find topics and datasets that interest us or that we can relate to, and craft a data story from it. **Share the story** with different people, **get feedback**, and iterate.