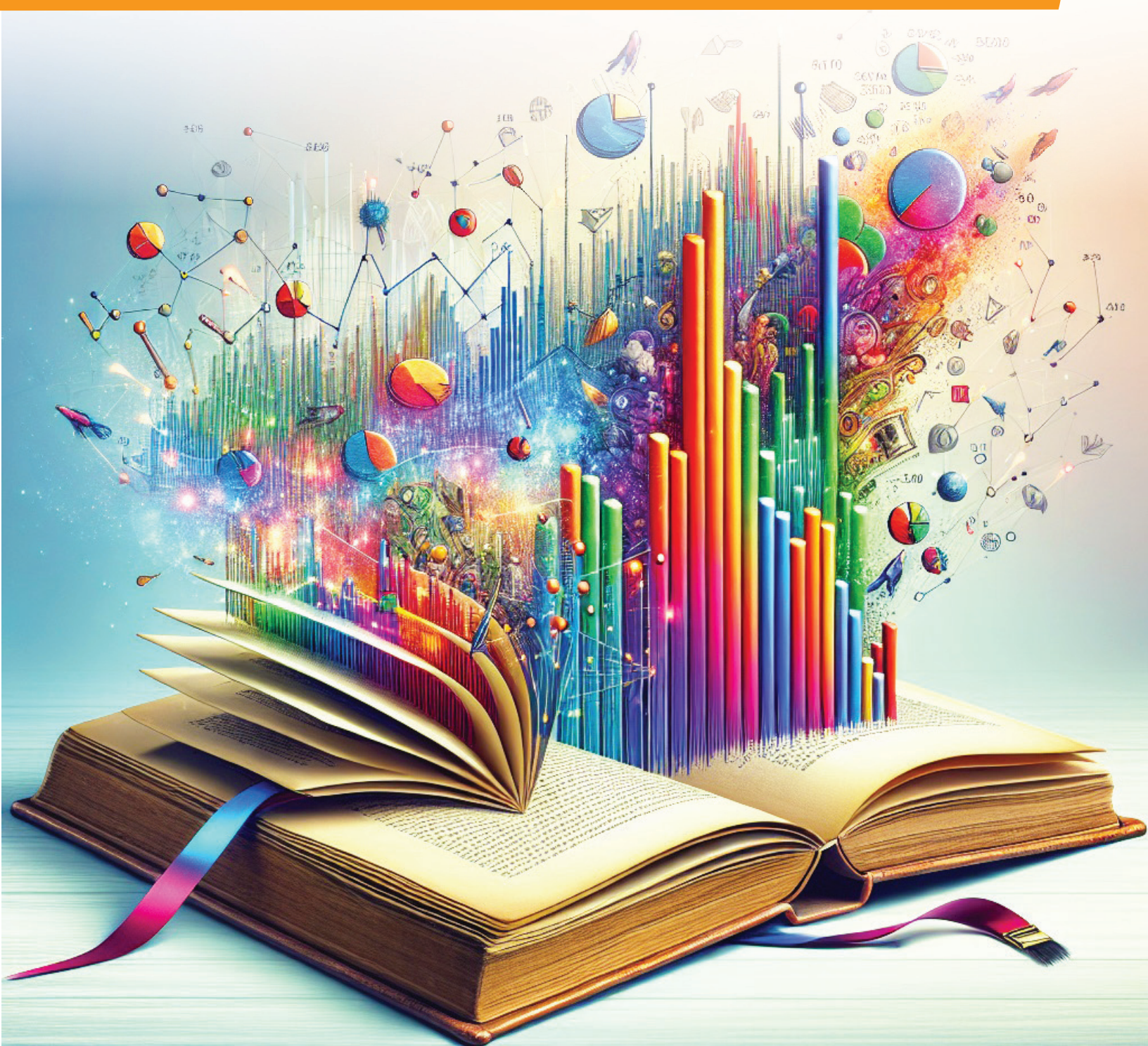


WHITEPAPER

keyrus
make data matter

DATA STORYTELLING



DATA STORYTELLING

What it is, why it matters, and how it helps you make better business decisions

Data plays a vital role in informing and influencing organisational decisions. Typically, these insights are delivered on an ongoing basis, via dashboards where stakeholders and other relevant parties can view and act on relevant information conveniently, in one place.

However, too often, these dashboards are designed and visualized in ways that don't properly consider their core purpose – or the people they are intended to serve.

At times where Generative Artificial Intelligence (genAI) is reshaping the way business users and managers interact with data, how can we think differently to ensure the insights conveyed by the data truly matter?

The data itself is not the issue. Indeed, we all have access to more than enough raw information. But rather, it's how this data is configured and presented to the real-world. It's frequently too detailed, there's too much of it, and it's not always available or organised in the best way to support the needs of those interpreting it.



The dangers of dashboard design

Dashboards risk falling foul of six common pitfalls, which compromise their relevance and usability:



1. No clear goal when designing

All the different visual elements and components end up being 'lumped together' on the dashboard screen, with no real underlying design strategy or objective. As a result, the dashboard looks disorganized and it's difficult to find what you need.



3. Too much information

Trying to share too many variables in one place actually just creates confusion. The core message and focus are lost as people's brains are not able to process this information and sensory overload.



2. Visually too 'busy'

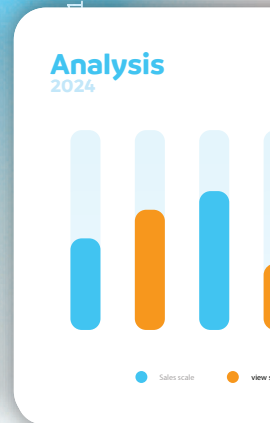
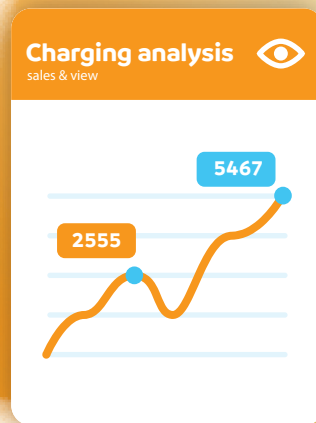
Dashboard designers add more and more images and design features, simply because they're available and they can. They think these additions enhance the dashboard because they're advanced and look beautiful in themselves; but in reality they end up over-complicating the overall appearance, meaning that people spend too much time trying to find what they need.



4. Poor data visualization

Including data that is overly technical or not directly related makes it difficult to understand. In turn, it doesn't resonate with or relate to the people using it in the right ways.





5. Conflicting design

Failing to consider common or recognized design cues (for example, using sensible colour schemes like green, amber and red to show performance metrics) can lead to people misinterpreting data or being unsure about what they are reading.



6. Technology overload

By getting carried away adding graphs, charts and other impressive technology in the dashboard, its core, simple business purpose is compromised and it becomes very difficult for people to get real value from it.

In addition to all the above, our innate human behaviour also plays a critical role in influencing the way we interpret and act on information we receive. At work we are advised to operate and make decisions based on facts and logic, not intuition and emotions. Yet some of the most successful business decisions in history have been entirely emotionally based. Put simply, we rely on emotions to make good decisions. We need them!

As such, an emotional perspective is an extremely important factor in determining how we develop and design dashboards for customers. Because although we are presenting rational, logical information from our data, its audience will be digesting and interacting with it in an emotional way. But rather than being an issue, this presents an enormous opportunity for 'data storytelling' – which we feel is the next big influencer in corporate decision-making.

"According to major technology market analysts, AI-augmented data stories will become the primary way of understanding and making sense of data by 2030."



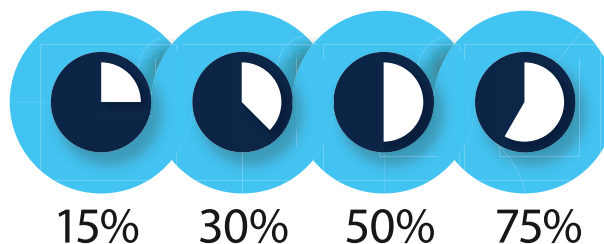
What is data storytelling, and how does it work?

Data storytelling is the practice of using data to craft a compelling narrative that communicates insights, trends, or findings to an audience in a clear and engaging way. In other words, it gives data a voice, a personality.

Throughout human history, storytelling has proven to be the most successful way to transfer and exchange knowledge across large groups of people and down through generations.

Data storytelling specifically involves combining data analysis with tested storytelling techniques with the aim of making data easier for people to access, understand and respond to. It does this by weaving together verbal and visual information, then communicating it in an organized, narrative style. In this way, data storytelling helps people make sense of complex information to create more memorable, engaging and persuasive insights, all of which directly facilitates better decision-making.

For this to happen, four sets of complemen-



tary competences are required:

1 Data science

First of all, you of course need to collate the data itself. It should be well-organized: good, clean information which is in a format that you can quickly extract insights from.

2 Context and relationships

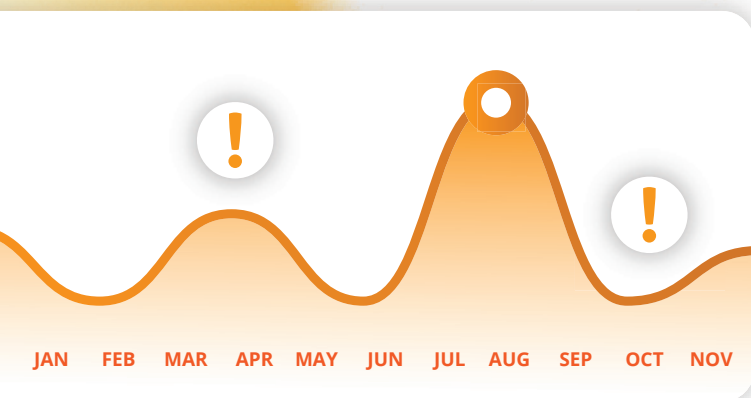
Once in place, this data needs to be appropriately positioned and explained. For this to happen, you must clearly establish who it is for, what its purpose is, the world and context surrounding it and any stakeholders and personas involved.

3 Visualization

Next, this information has to be visualized – that is, brought to life in a way that immediately conveys its core meaning and value in a way that connects with and engages those it is intended for.

4 Narrative

Finally, the physical, verbal story surrounding this meaning is added, to support the visual media and nurture its emotional impact, providing any details to drive and inform decision-making.



How to create a good data story

The techniques and practices behind good data storytelling are really no different from those required to tell any good story. It's all about finding the most compelling way to communicate your message, in a clear, succinct and appealing way.

The best – and certainly the most memorable – stories are simple. They focus on the key point they want to make and are designed to achieve a pre-defined objective. With that in mind, your data storytelling dashboard should apply the right data visualization techniques to convey your message, while avoiding any risk of information overload and ensuring that each element is visible.

Share only the specific and relevant information that is necessary to support your key message and which explicitly demonstrates the point you want to make, as efficiently and persuasively as possible. Less important information can then be aggregated and displayed in the background, for example as charts. All other data should be removed. If you do show charts, ensure that they are displayed in the most convenient format to help the viewer understand what is being shown (for example, bar charts are usually better than pie charts for showing comparisons or proportionate data over a time period).



The Keyrus guide to data storytelling

At Keyrus, we believe that an effective narrative is key to successful data storytelling. Facts present data, while narrative presents context – and this is what improves audience understanding by adding a layer of valuable insights, uniquely explained.

Like any good story, structure and style are critical. So, before doing anything else, establish your setting, objectives and parameters. What is your goal? What are you looking to achieve? Consider any problems or challenges you need to answer, and how you intend to connect with your audience to make this happen. Take time to sketch out the context and background to your story, and the key points you want to make.

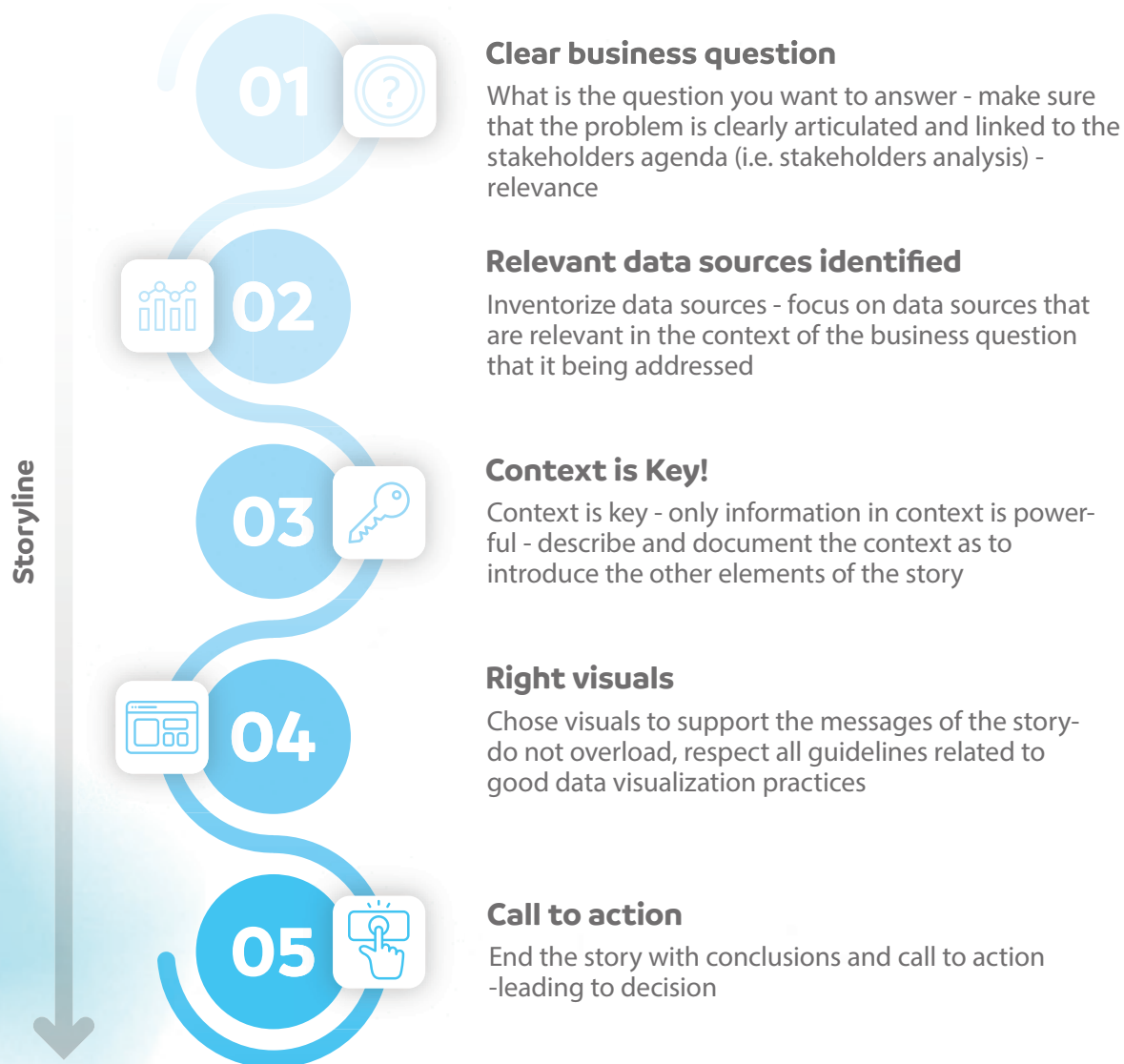
With this information documented, focus on identifying the one single thing you want your audience to remember – the single, core element of your story. Express this as a one-sentence summary. Then, craft a supporting analysis for this single take-away, again including only the key points that are relevant and which directly back up what you are saying.

Next, add proof points to provide as evidence for your core thought. Include insights such as statistics, case studies and other elements that give your audience greater knowledge of the topic and bring the data to life.

Finally, with all these constituent parts in place, you can weave them together to deliver your persuasive argument, the climax of your story and the major conclusions and case that will influence your audience to change their perceptions, come with you on your journey and ultimately, drive their decision-making.



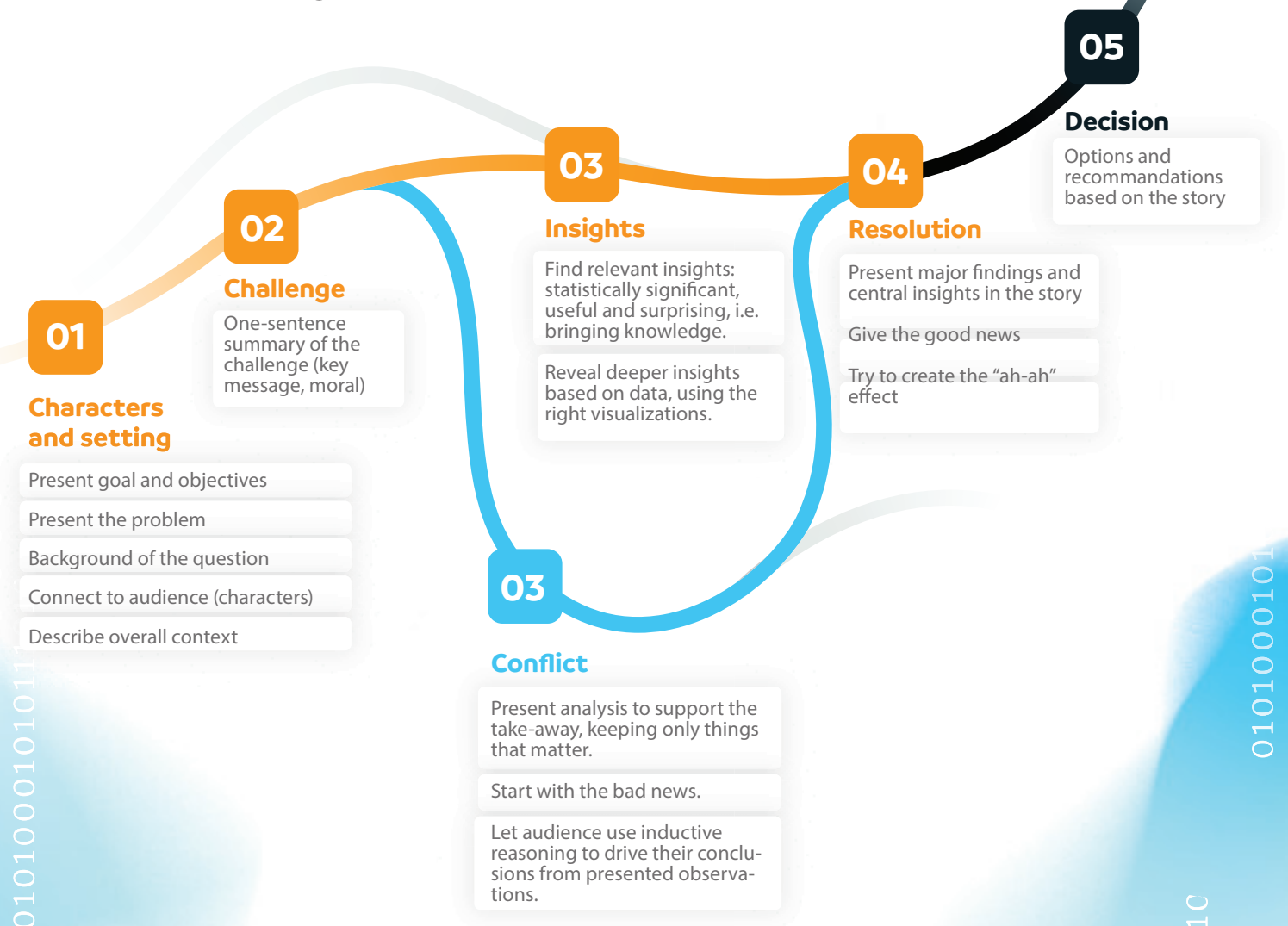
The five critical success factors of data storytelling



How to organize data stories?

Make the narrative a story

Facts present data, while narrative presents context, which augments the understanding of the audience by bringing additional valuable insights.

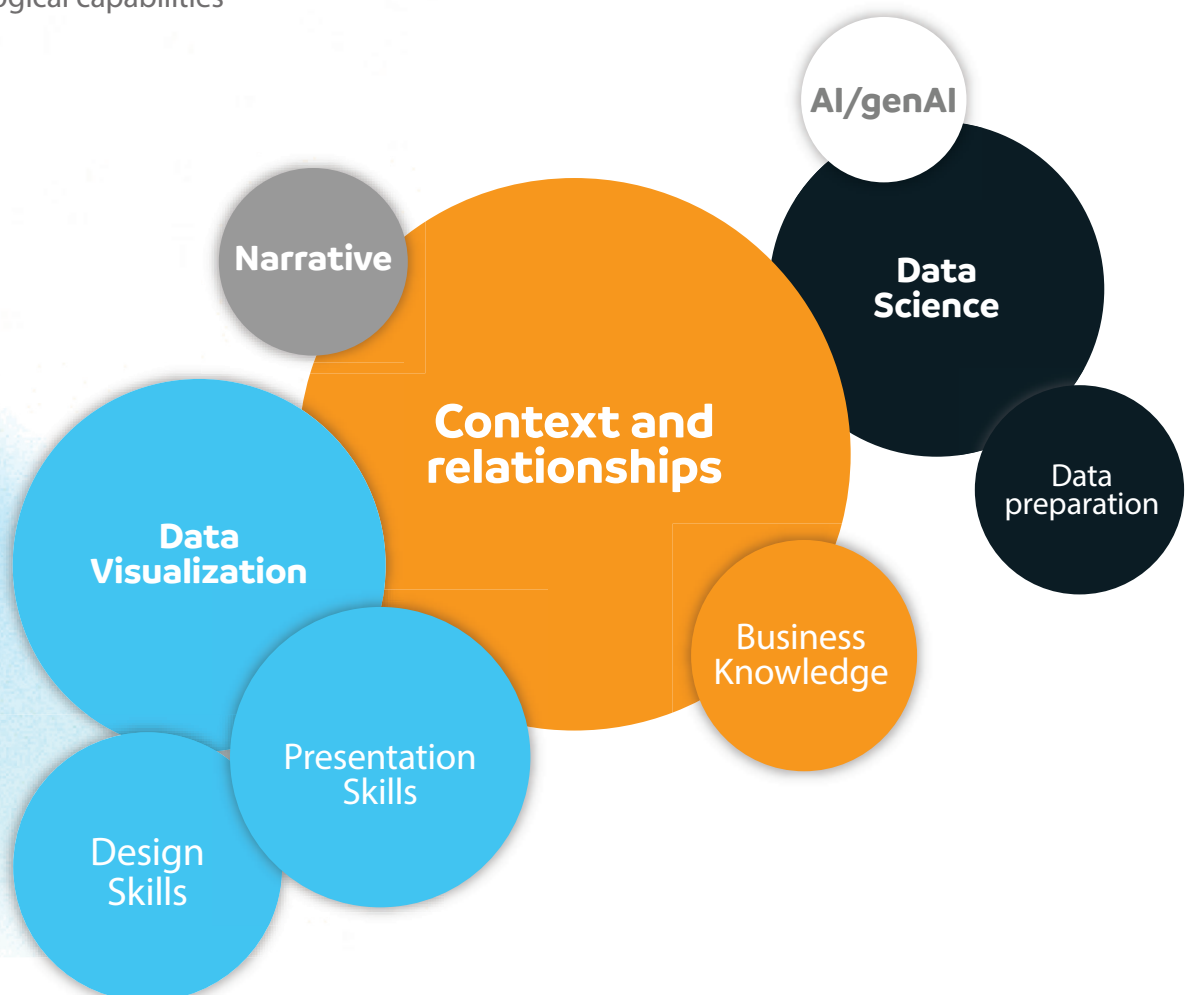


Lastly, we've talked about the fact that a good data story depends on simplicity and clarity, with no fancy, over-engineered technology or crowded, complicated dashboards. But simplicity on the surface doesn't mean that there aren't several elements required underneath, to create it.

Mechanically, your story will depend on a variety of contributing disciplines, both technological and non-technological. As we've discussed, data visualization and narrative will deliver your story, while a degree of design and presentation skills will be deployed in articulating it. Business knowledge and data science give you the tools to convey your evidence and substantiation; while you may also use data preparation and AI to enhance these facts. All of these levers work with one another in harmony, to create your compelling story.

Which technologies?

Data stories equally rely on technological and non-technological capabilities





Craig Andrew
Head of Data Analytics



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About Keyrus

Keyrus is a leading global consultancy in data intelligence and digital solutions. We combine business and technical expertise to unlock the maximum value from our customers' data.

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