DATA TELLS THE REAL STORY

HOW NARRATIVE WILL REDEFINE THE FUTURE OF ANALYTICS
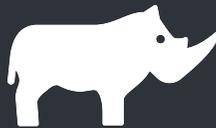
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SHIFTING FROM STATIC DASHBOARDS TO CONTEXTUAL INSIGHT

ANALYTIC USERS WANT TO SHARE MEANING NOT JUST A SET OF NUMBERS

For over 20 years, dashboards and data visualisation have been considered the best ways to explore, communicate and act on business data. However, as our data needs evolve in scope, our expectations on their capability will also require adjustment.

Dashboards originally started life as graphical interfaces. Designed to show a one-page snapshot of business performance, answering key questions like:

- **What is the current operational performance?**
- **Are there any cost efficiencies to be had?**
- **Which actions can I take?**

Data visualisation presented data in attractive visual forms, typically charts and graphs. The intention was to enable non-technical business users to better understand the data, even though they were still required to interpret what was on screen.

Today, data is more complex and growing faster than ever before, yet many business users are still expected to manually extract data and find answers from high-level charts and dashboards. Unfortunately, these formats can't always convey the full story behind the numbers or provide guaranteed actionable insights. It cannot be assumed that every user will feel confident with numbers, be able to read a line graph and perform data drill-downs.

Data alone rarely makes sense - it requires context! It's the story behind the numbers, that helps us understand.
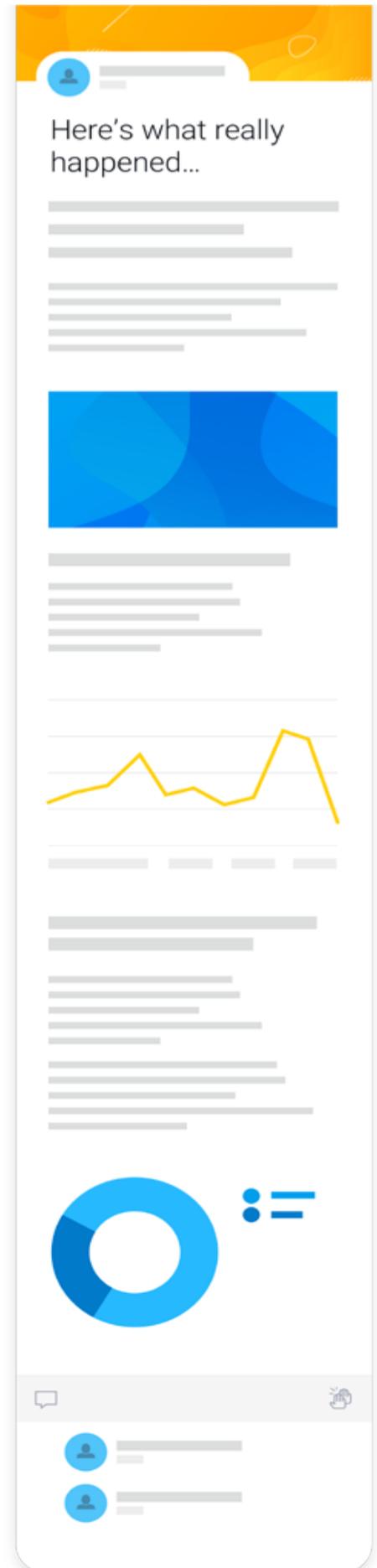
Helpful stories can be found in dashboards, but they're open to bias and interpretations that may not lead to the right answer. We need more diverse ways to find and share meaningful stories. For this reason, data storytelling has become an influential new driver of analytics adoption.
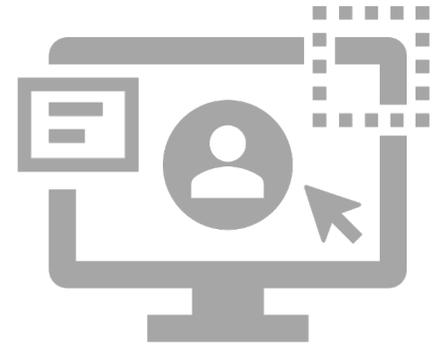
Data Storytelling employs narrative techniques, pairing them with credible quantitative and qualitative data. This inspires better engagement where users acquire a depth of meaning that leads to proactive decision making. It helps users to:

- **Emotionally articulate the detailed context for important data**
- **Tailor communication to the specific needs of their audience**

Data stories can be understood by business users and subject matter experts alike. If the process is automated, this means everyone has access to important business information when they need it.

Tell me a fact and I'll learn. Tell me a truth and I'll believe. But tell me a story and it will live in my heart forever.

– Native American Proverb.

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HOW TO FIND YOUR DATA STORY

PEOPLE WANT TO CREATE AND CONSUME STORIES AS EASILY AS POSSIBLE

When attempting to dissect and analyse data for the purposes of making business decisions, data storytelling is the detailed explanation of what the numbers represent. People are likely to grasp narration far easier than sharing spreadsheets full of numbers or charts visualising key metrics.

Tools such as **Yellowfin's Stories and Present** are built within the same Business Intelligence platform for analysis. They simplify the creation and distribution of secure, embedded data-led stories.

However, with more businesses investing in data storytelling skills and greater interest in features like Stories and Present, it begs the question: **What if a user can't tell a story with data?** Many people simply won't be able to convey the results of their data in a compelling narrative or have the time to learn how to.

This is where augmented analytics, a similarly rising influence in modern business intelligence (BI) solutions, comes in. With the infusion of technologies such as AI, machine learning and natural language that automate all parts of data analysis, including data storytelling, augmented analytics will ensure more people can create and consume data stories, as easily as possible.
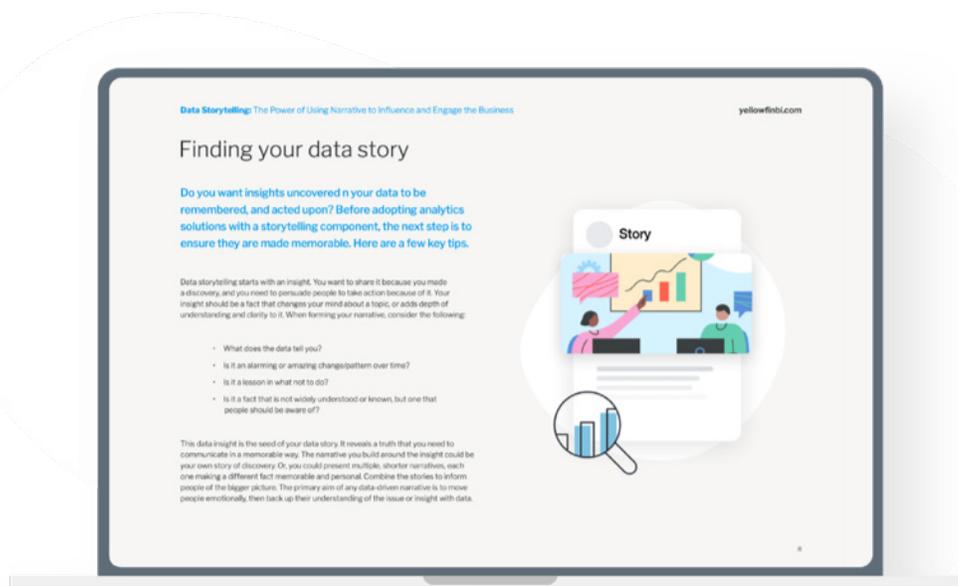
STORY TELLING IS ONE OF THE MOST IMPORTANT EMERGING CAPABILITIES

The **2021 Gartner Analytics & Business Intelligence Platforms Magic Quadrant Insights Webinars poll** recently revealed 25% of business leaders view data storytelling as one of the most important, emerging capabilities they want to have when selecting a new analytics solution.

It's the second highest result, behind automated insights at 44%, and demonstrates businesses want to be able to communicate insight and context from data using narrative. It also shows stories are seen as just as important as the machine-led capabilities of augmented analytics.
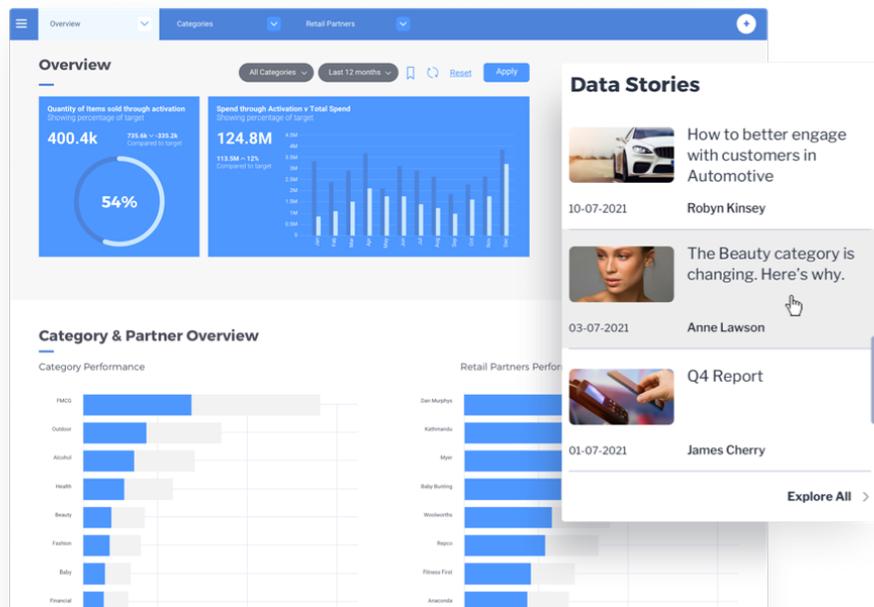
In fact, Gartner predicts data stories, not dashboards, to be the most widespread way of consuming analytics by 2025. It's not hard to see why; they're aimed at the business user in mind, rather than just data experts, and present data in a format most people are already familiar with and can understand without requiring extensive analytical or organisational training.

Gartner also predicts 75% of said data stories will be automatically generated rather than human-made, as it exists today. **So, what does this mean for the future of Business Intelligence?**

BUSINESS PROFESSIONALS NEED QUICK ACCESS TO DATA-LED INSIGHTS

Modern day BI tools are now likely to include augmented analytic features. By automating aspects of the narrative process, users will find it easier and more efficient to analyse data and share relevant stores.

Data storytelling is a manual practice led by the user. Combining narrative with data to deliver compelling insights to assist decision makers, who are then inspired to further engage with their data and analytics.

Unlike dashboards, which can be overwhelming, stories backed by data are easier to consume and understand. People tend to naturally express context when describing numbers, and this will always play a role in data exploration and insight discovery.

A growing trend towards the **'augmented analytics consumer'** is a mindset shift away from BI solutions catered purely for the technical analyst. Instead, it incorporates all business professionals who need quick access to data-led insights.

To help guide people in understanding what their data means and how to act on it, technologies such as artificial intelligence and natural language query (NLQ) are now becoming streamlined options in analytics solutions. This benefits non-technical users because they no longer need to heavily rely on experts for advice, which means more time spent exploring data.

> *25% of business leaders view data storytelling as one of the most important, emerging capabilities they want to have when selecting a new analytics solution.*
>
> *– Gartner, 2021*

3

DATA STORY TELLING OVERCOMES CHALLENGES

DATA-LED STORIES SOLVE MANUAL PROCESSES

Automated data storytelling is gaining attention due to its ability to solve three emerging challenges of the largely human-driven, manual process that exists today:

- **Challenge #1 - Stories need to be based on more than just human bias:**
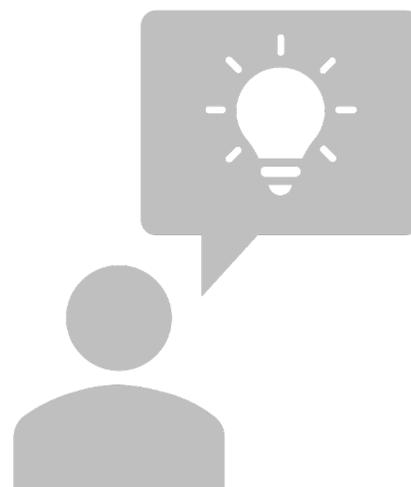
Creating a data story generally starts with finding a problem or opportunity in a dashboard or visualisation, and then exploring, narrating and sharing it with others in the form of a story. It can also start from regular reporting process, such as a weekly or monthly update about a particular business topic (sales performance, customer churn, etc.) However, what one person finds an interesting anomaly or relevant insight, another might ignore or miss entirely. Avoiding the pitfalls of human bias, such as attentional or confirmation bias, when sharing insight requires experience and awareness not everyone has, and it may make quality data storytelling a slow or sporadic practice.

- **Challenge # 2 - Data literacy and self-service limitations:**

Manipulating data and undertaking visual analysis is not everyone's strength, and self-service BI relies on the user's ability to tell a good data story. It's tricky to always make this manual process work if the person's data literacy or fluency levels are limited.

- **Challenge # 3 - Scaling data storytelling across the business:**

Analysts can't always be expected to find and extract meaningful stories in big datasets in a timely fashion, and other non-technical professionals may be busy dealing with normal business operations to spend much time consuming and then communicating insights in narrative form for everyone's benefit. So, prioritising the development of analytical story telling skills across the business remains an open question.

As explored by industry advisory leaders such as Gartner, there are many ways combining data storytelling with augmented analytics could help reduce or eliminate these challenges.

Challenge #1
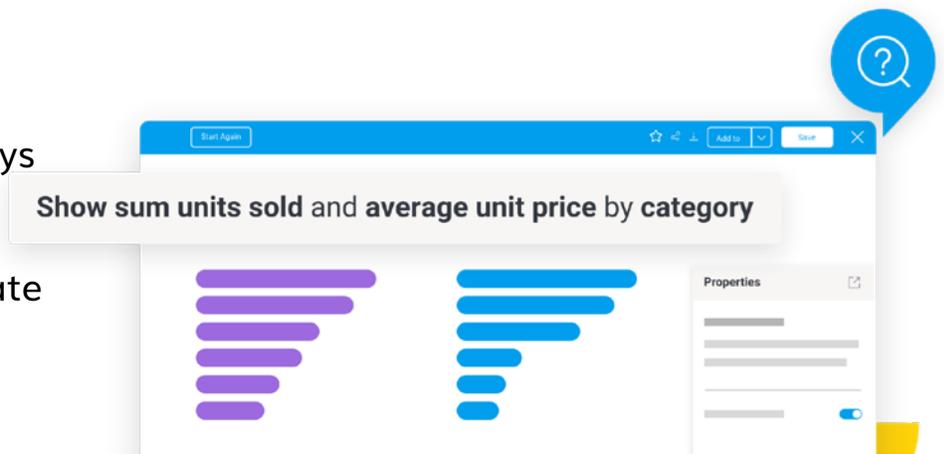
Augmented analytics, through AI, machine learning, analyses business data in a way that avoids human bias when exploring a data set. Extending this with a data storytelling module could help generate helpful data-led narratives that may be missed, overlooked or undervalued when created by people.

Challenge #2

Automated business monitoring and automated analytics could extend past its monitoring and alerting capabilities and use automation to generate stories at scale, giving analysts and professionals more time for their workflow and less on exploring data.

Challenge #3

Augmented analytics can take pressure off end-users' by automating common and complex self-service BI processes, such as mashing datasets together. This can side-step the requirement for high data literacy altogether by generating stories based on detected problems and opportunities in the widest possible dataset.

Automating the interpretation of data makes the analysis part of the process easier. Freeing up humans to provide the additional context and tell the data story. It's all about augmenting capabilities of analytics users to make them more effective overall.

Of course, this all hinges on having BI software able to apply these technologies and generate stories in a way that does not seem too algorithmic to the reader. The emotion we put into our stories, whether it's personal interpretation, celebration of an achievement or expert opinion, is a big part of telling data-led stories and not something that technology can easily replicate, for now at least.

However, there are some current-day examples that can provide a glimpse into what's possible.

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COMBINING DATA STORYTELLING, AUGMENTED ANALYTICS AND AUTOMATION

BI TOOLS CAN ENHANCE THE ANALYTICS EXPERIENCE

In our opinion, there's only one tool on the market today that successfully employs augmented analytics techniques to enhance the analytics experience.

Yellowfin's Assisted natural language generation (NLG) feature can automate part of the data interpretation by generating text-based explanations or comparisons of chart and dashboard data. This lessens the level of user interpretation needed when creating a story.

Yellowfin is also capable of continually monitoring and detecting patterns or outliers in data without the need for human intervention. Their ABM product Signals generates headline-based alerts for users to become aware of important discoveries.
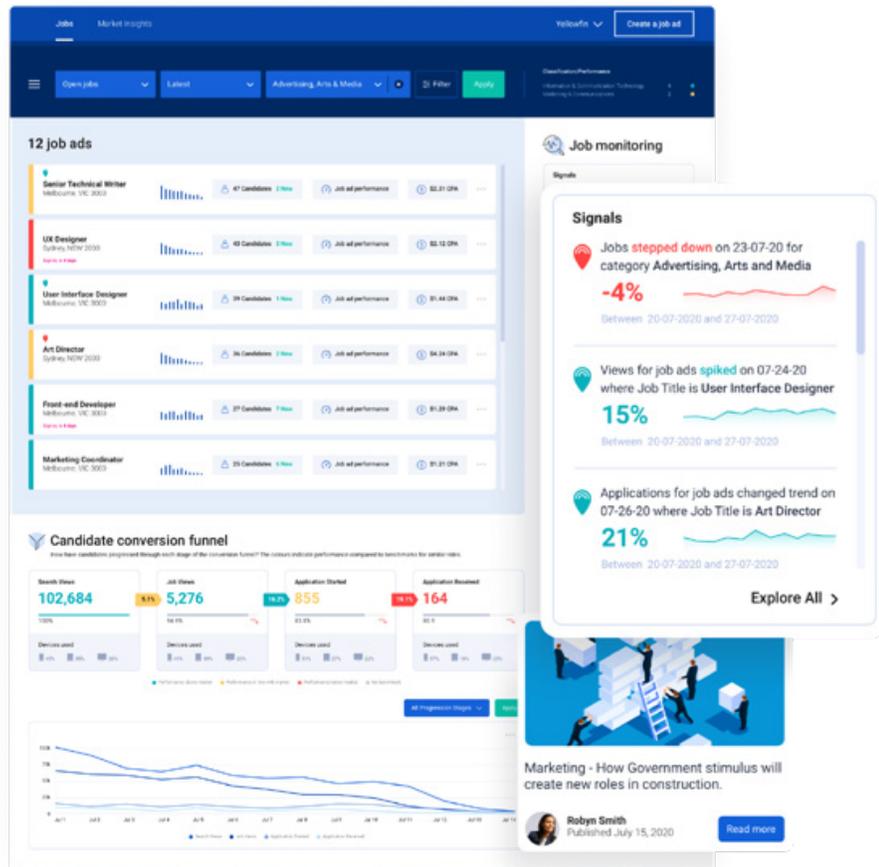
Automated Assisted Insights and Signals allow for large amounts of complex data to be found and analysed faster. Data insights can be communicated without human bias. These explanations and alerts of new trends or interesting changes, can effectively act as an impetus for the data storytelling process. Together with Stories and Present, Yellowfin's dedicated data storytelling modules, a user can quickly find problems and opportunities, creating stories with rich text and media.

Yellowfin unifies powerful, automated techniques into a single pane of analysis, with AI-generated interpretation of insights, automated alerts, and data storytelling, all feeding into a dashboard that can become part of every user's standard BI workflow.

This tool exists to help data storytellers get started.

5


THE FUTURE OF ANALYTICS

DATA TOOLS AND PEOPLE WORK TOGETHER

Ultimately, narrative is a more natural way for people to absorb information than straightforward delivery of information. Used together with modern analytics tools, it helps business users better understand their dashboards, reports and charts without requiring a background in data analysis.

People will always be involved in telling the story - it's only the data analysis part that can be automated. While results generated by algorithms are not comparable to the types of narratives humans create, they can help guide users on their journey to discovering and understanding insights. It therefore makes sense that industry experts predict the combination of data storytelling with augmented analytics; automation has proven more than able to generate and automate parts of a data story's creation.

Knowing how to translate emotion, personal interpretation, experience, and overall context is a human quality that augmented and automated analytics solutions won't immediately solve. However, it's clear automated and augmented data storytelling is not that out of reach. Recognising these capabilities early could mean businesses are better prepared for when they are fully available.

To see what's already possible with data storytelling in analytics today, there's no better time to explore and begin building data-led narratives with Yellowfin Stories and Present.
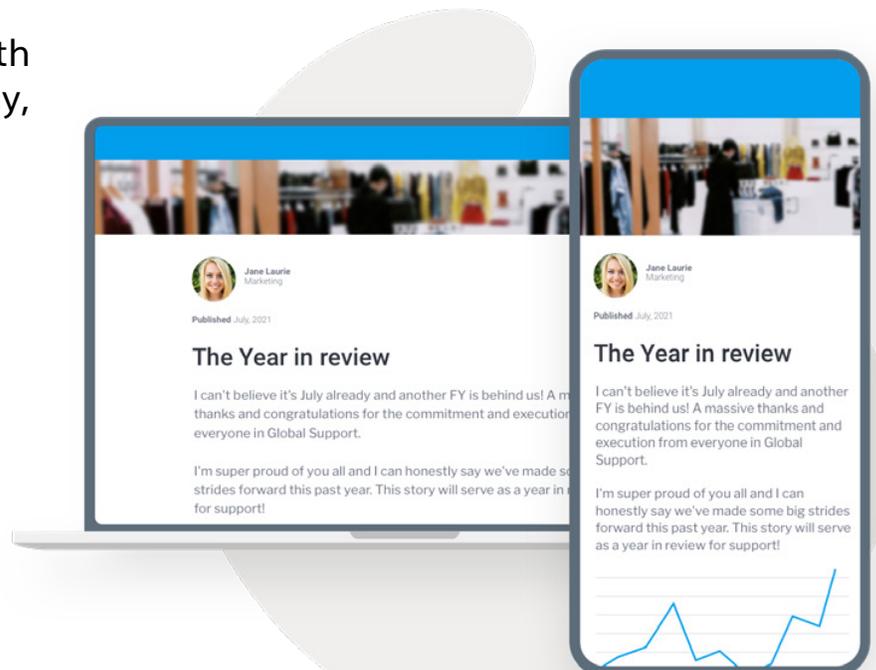
LEARN MORE

Find out how your business can generate data-led stories with contextual insights that users truly understand.

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