Drive Better Decision-Making With Data Storytelling

insightsoftware

Contents

1 Embedded Analytics Can Be The Foundation Of Successful Applications, And Data Storytelling Is Now Critical For Businesses Today.

Are you sitting comfortably...?

Good, because great storytelling should hold your attention. It's a fundamental human skill, but the concept of utilizing embedded analytics and data to tell stories is still new and evolving. Fully understanding the benefits is essential to making the most of your analytics.

Are you concerned your application is becoming irrelevant? Are you worried it's missing opportunities to provide critical insights? Or losing value completely?

By embedding a layer of analytics into your application, you'll be paving the way to delivering better results and stronger decision-making. Data discovery is constantly on the rise, and organizations are striving to make the most out of analytics.

From simplifying data preparation and visualization for decision-making to optimizing applications to gain insights from near-real-

time data, visualizations, interactive reports, and other capabilities. All can keep you ahead of the curve. Save time. Increase productivity. Innovate faster. And serve your users in the best way possible.

Users require data insights and data storytelling to not only help them provide better context but to help collect information in one place, so everyone can align on the most appropriate actions to take next.

When a story is told effectively, it sticks in the memory, and you experience it as though you've lived it yourself. Ensure your insights are heard and acted upon by making them memorable and impactful through storytelling.

Harnessing embedded analytics and data storytelling will help drive decisions, sow ideas and evoke feelings, all of which users won't forget about as easily as a standard dashboard.

2 | Meeting Users' Expectations With Embedded Analytics

Let's quickly start with the basics: embedded analytics.

We've come to a point where basic analytics functions are no longer the 'page-turners' they used to be as users search for insights. Today's end-users are spoilt for choice when it comes to their data and analytics. Simply put... they expect much more.

This is where embedded analytics solutions come in.

As was revealed in the Hanover Research survey for the 2021 State of Analytics:

"Over 80 percent of application teams say they were able to increase the time users spent in their applications just by adding or improving the embedded analytics."

Right now could be the best time to recognize there are opportunities to expand your application's analytics capabilities, and meet the new baseline.

The modern user expects access to the information they want, exactly when they need it. This information needs to be accurate and accessible in real-time. Embedded analytics makes this possible.

78% of software vendors offering paid commercial applications charge more for their embedded analytics. For companies that don't charge for analytics, 55% said they can't do so because their competition already has a stronghold - and they need analytics either to keep up or catch up.

3 **Analytics Are Essential For Users**

Users need data and insights as much as application teams do. In fact, analytics has become an essential tool for users who wish to make the most informed decisions.

Access to effective analytics is critical for many users, whether it be to share information through reports and visualizations to foster collaboration or broaden knowledge and insights across the wider organization

Without analytics to help translate data into valuable insights, users will find it increasingly difficult to guide decision-making, steer teamwork in the right direction, and drive their whole organization towards a data- driven approach.

82%
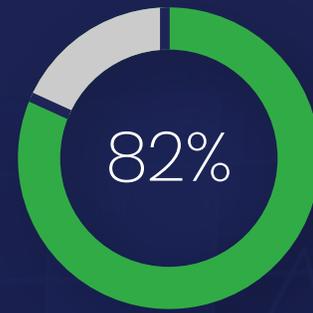
82% of users consider analytics to be very or extremely significant to their current role.
2021 State of Analytics: Why Users Demand Better

87%
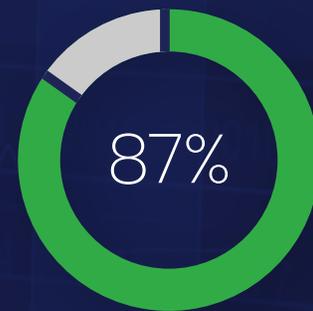
87% of organizations use analytics often or very often to make business decisions.
2021 State of Analytics: Why Users Demand Better

77%
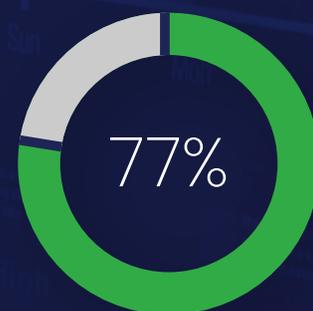
77% of organizations consider end-user data literacy "very" or "extremely important" in making fast and accurate decisions.
2021 State of Analytics: Why Users Demand Better

Driving Decision-Making To Achieve Success

Having the right analytics tools is critical for any organization to use its data to foster a culture of sound decision-making, especially one that lasts. Users find analytics essential for setting goals, objectives, and key performance indicators (KPIs) based on the insights gained. It's simply not possible to achieve a level of continuous, measurable improvement without the right analytics tool.

> Better collaboration
> More effective organization
> Streamlined processes

Analytics helps organizations use their data to generate efficiencies, and inform stronger decisions that ensure long-term success.

To really derive value from data, users need to make sense of it. However, Hanover Research found that, based on their abilities, only 10% of users are data fluent.

This is where data visualization comes in...

99% of users spend time looking for information they couldn't easily find in their analytics solution.

2021 State of Analytics: Why Users Demand Better
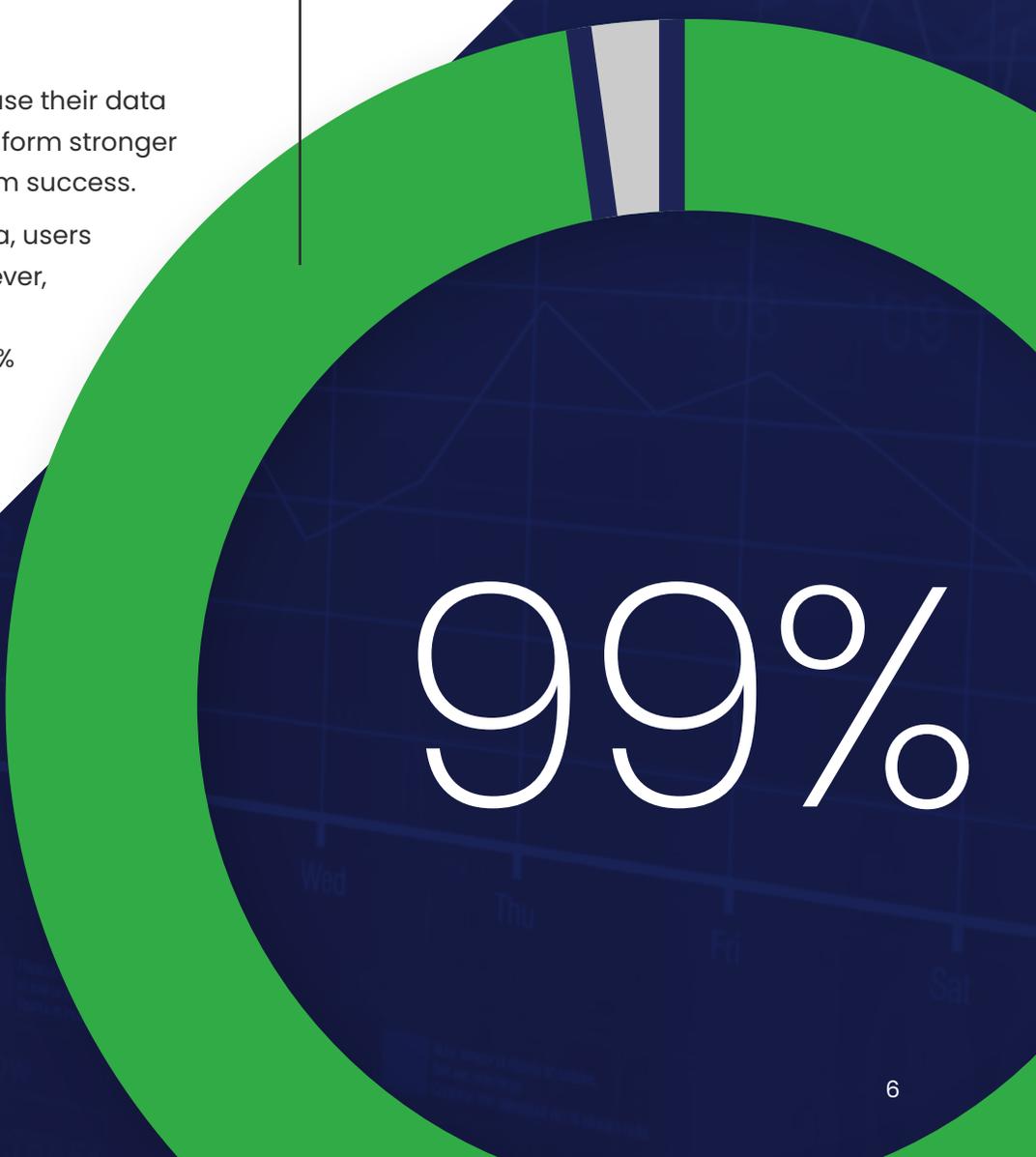
99%

"Data visualization is the graphical display of abstract information for two purposes: sense-making (also called data analysis) and communication. Important stories live in our data and data visualization is a powerful means to discover and understand these stories, and then to present them to others."

Stephen Few, 'Data Visualization for Human Perception' by the Interaction Design Foundation

4 Helping Users Analyze With Data Visualization

It's critical to present data in the simplest way possible so that each one of your users can understand and derive value from it. This is why data visualization is so important and so effective. After all, a 'picture is worth a thousand words' right?

End-users now demand more than basic charts and the procedure of collaborating and transforming data and information into a visual context needs to be more sophisticated, yet more accessible.

Data visualization techniques can allow users to grasp information more easily, and more importantly, can help deliver a story for decision-making that allows users to act faster. With the right data visualization, your users can interact with data and draw questions that lead towards more significant insights.

Effective data visualization can help:

> With the interpretation of data to clarify critical decisions.

> With handling huge amounts of data in a picturesque structure to summarize unseen patterns.

> Expose the intuitions and narratives behind the data for establishing goals.

> Uncover previously unnoticed aspects within the data decision to compile data evaluation reports.

Benefits Of Data Visualization

It's clear that decision-makers can benefit from several methods to augment data intuitions. And in the age of big data, it's worth investing in data visualization, to more effectively chisel away at raw data and create meaning - patterns and associations, maps, and models.

All of which can help users draw insights, understand trends and even make decisions from the stories the data can tell.
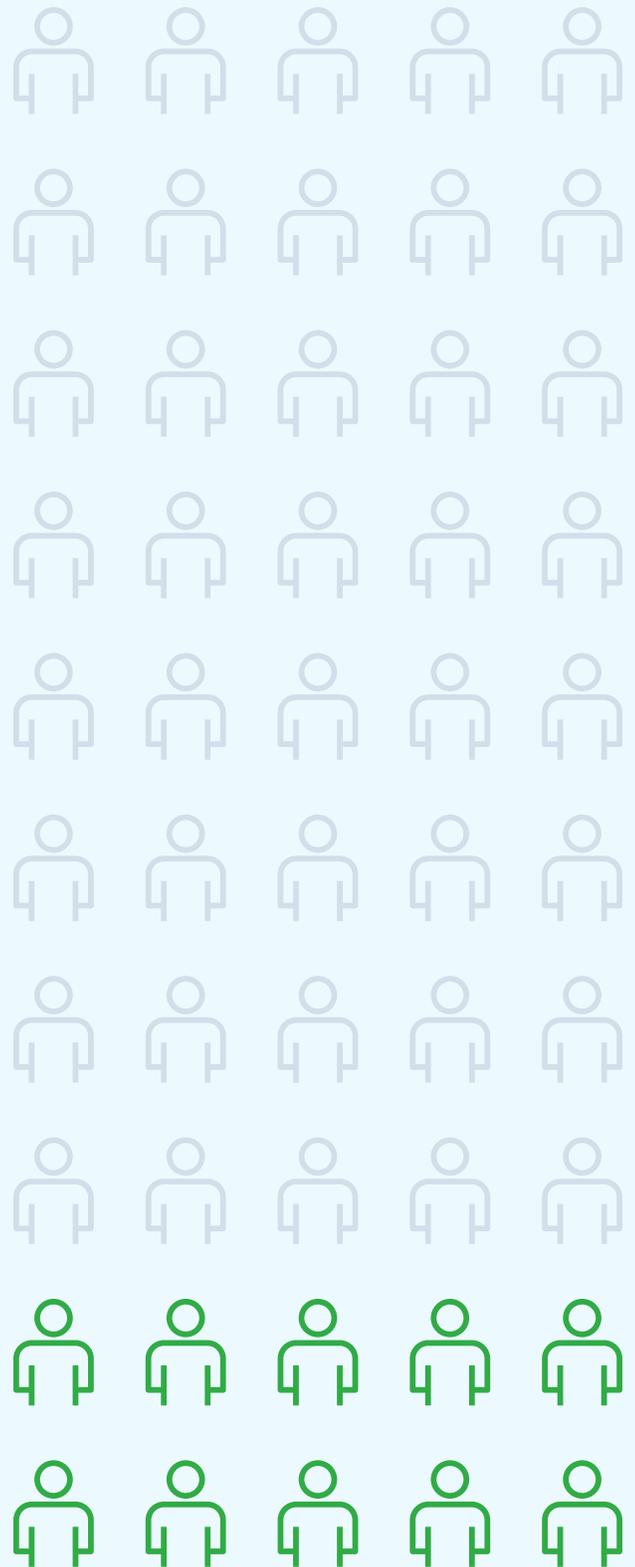
Only 20% of users were most satisfied with data visualizations.

Hanover's research report

Let's explore the key benefits of data visualization...

> **Take swifter actions**
  We all comprehend visuals more clearly than basic reports. Meaning data visualization can allow decision-makers to quickly notify new data intuitions and take the necessary actions for greater organizational growth.

> **Spot errors**
  Identifying errors quickly in data is made far easier thanks to data visualization, which can help identify mistaken data sooner to be removed from data analysis.

> **Evaluate more effectively**
  Through data visualization, you'll be able to better assess the strategy and product reports, and focus on areas that need attention to enhance the profitability ratio. Helping your organization move forwards in the right direction.

We asked the PLA community if data visualization significantly improved user insights and productivity, and **81% agreed that it had.**

81%
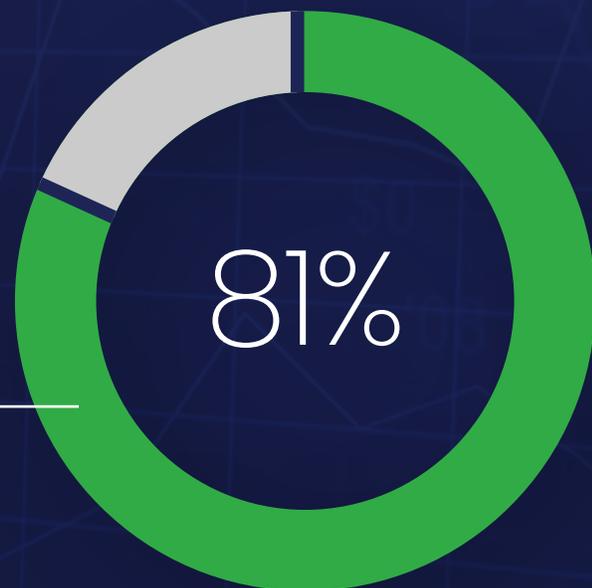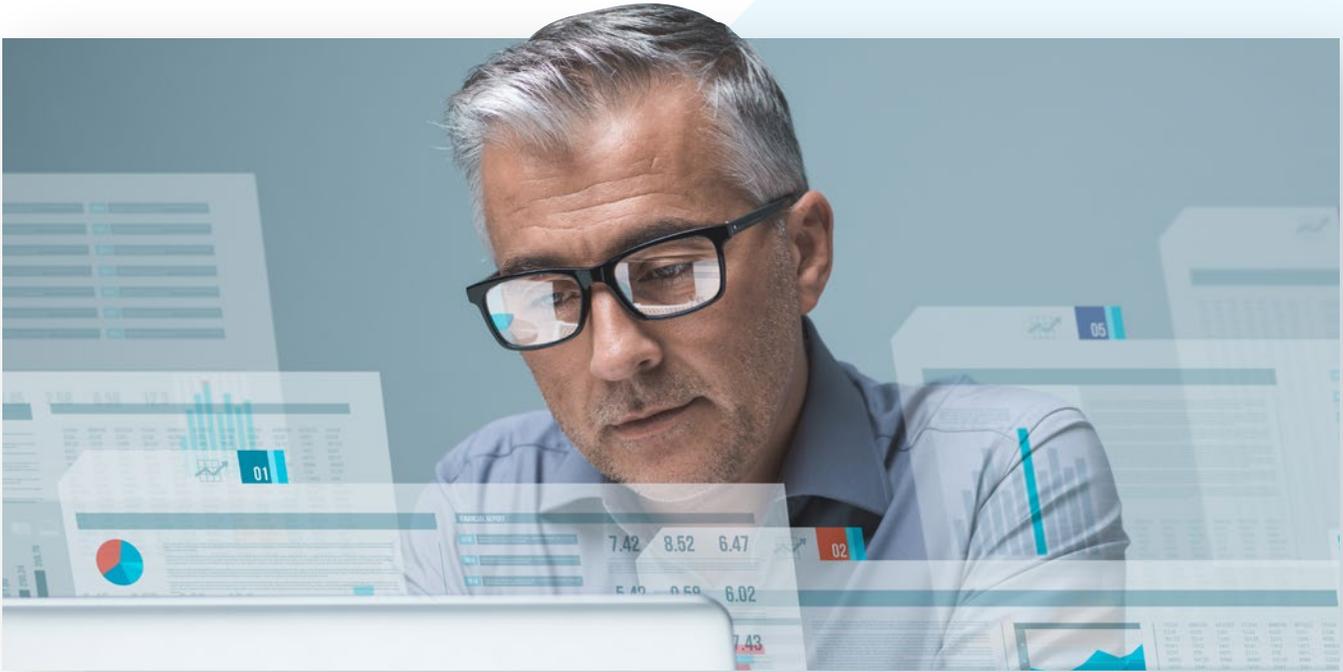
> **Identify patterns easily**
A big amount of complex data can offer up opportunities for insights, and effective visualization makes it easier to identify any relationships between the data. Patterns can be explored and users can hone in on certain areas that need data to identify their significance.

> **Explore organizational insights**
Discovering the data correlations through visual representation can be crucial when it comes to identifying organizational insights. These key insights can help set you on the right path to fulfilling your goals.

> **Understand the trends**
Users can discover the latest trends through visualization techniques, understanding and identifying any problems before they arise.

> **See the full story**
Storytelling is the objective of your dashboard. Taking a meaningful approach when designing visuals helps users to fully see the story in a single glance.

Data stories are enhanced through data visualization

Data visualization requires a lot of effort and work, and all visual elements need to be correctly balanced, to avoid mistakes and create meaningful data stories.

Data visualization needs to be user-specific with precise prerequisites

Before creating data visualization, it's critical that you know and understand the specific requirements of the users. Don't focus on visualizations with a scientific background, if the user doesn't have one, for example.

5 Storytelling Is More Than Just Data Visualization

Storytelling provides an organized approach for conveying data insights through visuals and narrative. Bit it's more than simply data visualization, the term 'data storytelling' has been correlated with many other terms; from dashboards and infographics to data presentation and data visualization, etc.

Data storytelling can be interpreted as a much more effective means of visualizing data, beyond simply presenting spreadsheets with rows of numbers as a means to display value. When data is presented in the form of a story, it's easier for users to understand its importance and take the right actions.

Narrative and visuals united

By coupling narrative with data, you'll be able to clearly see what transpires in the data and why particular insights are significant. Users can be enlightened to insights that can't be seen without employing visuals on data, and this uniting of visuals and narrative can also increase user adoption and strengthen engagement.

Just like a thrilling novel or immersive TV show, when the right visuals and narrative are combined with the correct data, you create a data story that can impact and lead to real change.

Breaking Down Data-Driven Storytelling

Turning big data into something more easily digestible, and easily understood requires data-driven storytelling. It helps turn insights into action. This structured approach for communicating data insights is highly-effective, as we're all programmed to think visually, that's why transforming data into a visual story is so important if you wish to leverage the value that data provides.

Data-driven storytelling could be used to influence user actions, and ensure they understand what data matters the most.

A good data story is formed by three components:

1. Data analysis - This is the basis of a strong story and mastering the data is an essential part of the process. For your users to derive actionable insights, having accurate and up-to-date data is critical.

2. Data visualization - Visualizations help to effectively tell a data-driven story. Users will be more engaged, their emotions triggered, and data-driven decision-making will be enhanced. Data can be conveyed in a way that's understandable, memorable, and attractive.

3. Narrative - This component is centered on the simple language used to describe the data. Visualizations and insights are supported by a narrative that helps to expedite the decision-making process.

"We conducted a poll amongst the Product-Alliance community of product managers on how exactly embedded analytics and data storytelling is empowering their users. And 88% agreed that it helped them make better data-driven decisions."

How has embedded analytics benefited your customers? It's allowed them to…

Top 3 Votes For Answers

52%
Easily explore key metrics

88%
Make data-driven decisions

46%
Get a more valued experience

6 Why Is Storytelling So Critical?

Many modern self-service analytics and BI tools fall short when it comes to turning users into data storytellers. More often than not, organizations don't fully understand the potential power of data storytelling and the impact it can have.

You need to view data as a source of information and insight from which opinions can be made, and data storytelling needs to be woven into the culture of applications and organizations. Users won't be able to convert findings into valuable insights unless they fully comprehend the skills needed to tell a story with that data.

Actionable insights can't be gathered if a data insight isn't understood and isn't compelling. Why bother investing in tools and technology if you can't use the insights to drive the right decisions?

Data culture and literacy need to be a priority to enable you to do more engaging and meaningful data storytelling, and in turn, to get a better return on your investment. After all, data literacy correlates with a data-driven organizational culture.

Stories are essential to our daily lives, and time and time again, storytelling has proved to be a prevailing delivery mechanism for insights and sharing ideas in the most memorable, and engaging ways.

7 Data Storytelling Is The Future Of Analytics

Data storytelling is the ability to tell a story with data and to personalize that data according to the user. Simple data visualization is not enough anymore.

Though it allows you to communicate complex figures and information by transforming them into visual objects, it is aimed at the data and business intelligence departments of large organizations

To illustrate, a product manager doesn't have the same reporting needs as an operational manager responsible for digital campaigns. With data visualization alone, the product manager will not be able to get a separate view of the data. But with data storytelling, they can customize their data reports depending on the data needs to get actionable insights.

Data storytelling has many advantages, including:

> Turn your data into action. With clear and usable data at your disposal, you can quickly identify trends and possible strategies for your business.

> Improve the productivity of your teams. Data is automatically presented simply and interactively. Their time is thus concentrated on tasks with high added value.

> Find more agility in your decision-making. Thanks to a simple and easy-to-use tool in a context where decisions must be made more and more quickly, you reconcile your CIO and the business teams.

25%

Analytics users are moving away from static dashboards to data-led narratives, and data storytelling is allowing for new opportunities to extract insights and present data in a much more engaging way. This fusion of embedded analytics combined with data storytelling can allow more users to create and consume data stories.

Data today is more complex and growing at a faster rate, and high-level charts and dashboards can no longer convey the full story behind the numbers, or provide the actionable insights users are searching for.

Today users need context - they need to easily see the story behind the data, without it being open to bias and interpretations that may not lead to the right answers. This is why the demand for data storytelling has become so critical as a driver of analytics adoption.

By employing narrative techniques, together with trusted qualitative and quantitative data, users can bring a greater depth of understanding and discovery to the numbers, that inspires actionable insights in the most engaging way.

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.

2021 Gartner Analytics & Business Intelligence Platforms Magic Quadrant Insights Webinars poll recently revealed that:

Data-led stories and embedded analytics can allow users to more effectively:

> Derive a greater level of context from important data by articulating a level of emotion within its presentation.

> Discern the importance of data in more detail, as opposed to trying to fully understand it at a glance.

> Get everyone aligned by tailoring the information to the user's specific needs.

Gartner also predicted that data stories, not dashboards, will be the most widespread way of consuming analytics by 2025.

Data storytelling is now predominantly led by the user, and a user-driven story backed by data is much more easily understood and far less overwhelming. With data storytelling and embedded analytics intersecting, the mind-shift of users is also changing. Shifting away from BI solutions catering to the analyst toward those who simply require easier and faster data-led insights.

Embedded analytics helps non-technical users to utilize enhanced analysis techniques without needing advanced knowledge, which in turn reduces any reliance on experts and time spent exploring data.

This line of thinking is now being extended to data storytelling. With the right embedded analytics tool, users can build a story around an important insight that can engage emotionally and provide depth of understanding that drives better decision-making.

"In a lot of organizations, users of "analytics" are both external and internal. Here is how this has impacted our users externally and internally."

"On the external front – users would like to know usage stats around how our tools are being utilized. Utilization statistics will provide insight into the usefulness of our products. Embedded summary analytics around the current state of the project sheds light on progress and blockers."

"On the internal front – data storytelling is important to provide visibility into core business metrics such as Revenue, Users and Activity to leadership."

Ajay Murali – Senior Manager, Product Analytics, Atlassian

8 | Discovering Your Data Story

Remember, the whole reason you want to share data is because of a discovery you need users to take action on. The insights you've discovered serve as seeds to plant and grow your data story - they should act as a source of truth that needs to be communicated in a memorable way.

Whether you present the above as your own story of discovery or as multiple, personalized narratives, you can combine the stories to allow users to see the bigger picture. Move them emotionally, and then back up their understanding of the issue or insight with data.

Of course, the foundation of every great and memorable story is…. the dramatic story arc. And every great story rises to a climax and a resolution, which equates to the discovery of the data insights.

Working backward from here, you can craft your powerful data-storytelling arc:

Crafting a plotline with clear objectives

A strong data story has clear, specific objectives. You need to ask yourself what it was that set you down the path of uncovering the insights and use this to set the scene so that your users have the same experience.

From here, you can go through the problems you faced searching for a solution, building your way to the resolution of your story.

Setting the scene

You always need some exposition when it comes to building a compelling narrative, so ensure you're answering the who, what, where, and when. This can help guide your users into fully understanding the context of the problem you needed to solve.

Building conflict

After setting the scene, comes the rising action, where tension and drama are created. Leaving people hooked and wondering how/if the problems will be overcome.

The turning point

Now we come to the climactic part of the data story, where there's a clear turning point in the plot. Conflict comes to a head and the audience is on tenterhooks.

Falling action

The final outcome is revealed, conflict is eased and all the narrative pieces begin to fall into place.

Reaching a resolution

Everything is tied together and the audience is left satisfied. It's at this point where you reveal the core message to users with a call to action. Your data story's main focus is to prompt your users to act on the information and emotion they feel.

When delivering your data-driven story, don't overwhelm your users with too much detail, it's important to keep the narrative flowing smoothly.

Focus on the story before stats, and deliver your data insights from the heart to evoke emotions from your users. Convey your key message with data that supports it so users are moved to act on the information.

Consider keeping things simple with tool tips to help users quickly comprehend the data and keep your story flowing. You could also filter insights based on comparisons, or use time sliders if the insights are based on something that's changed over time.

"Embedded analytics and data storytelling can help drive decisions by clearly understanding the reasons for the shift in metrics and making timely decisions. A simple example of storytelling by utilizing driver trees can create a significant impact."

"It will increase user adoption by providing visibility into critical metrics and utilization statistics. For example, providing a summary report of the total number of tickets closed will empower users to log into the tool more."

Ajay Murali, Senior Manager, Product Analytics - Atlassian

9 Conclusion

Embedded analytics is a sector that's still experiencing a wave of innovation, and we are very much moving past the traditional operating reports and dashboards, which when used on their own rarely provide the full necessary context for the data they share, resulting in differing interpretations.

Data storytelling and analytics platforms with tools specifically made to build a narrative around data can not only provide users with greater context, but can also help collect information in a central place so that everyone can align on the best actions to take moving forward. To facilitate the best course of action, you need to share your findings in an engaging way through the analytics you adopt.

Make sure you have the right solution that gives you the tools to tell your next story. Combine data storytelling and embedded analytics with insightsoftware.

Additional Resources

> **2021 State of Analytics How Data Literacy**

> **Improves Decision-Making The Hitchhiker's Guide to Analytics**

> **How to Build Data Experiences for End Users**

> **The Big Payoff of Application Analytics**
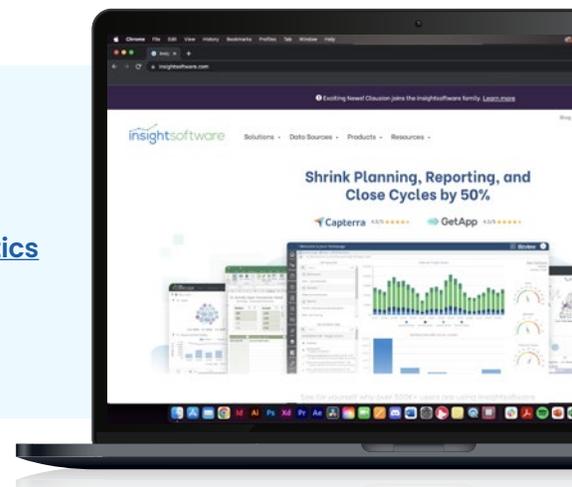
Logi Embedded Analytics: Purpose-Built for Software Teams

Product teams need intuitive analytics and data visualization capabilities in their applications, purpose-built for every users' unique role and skills. Logi's embedded analytics solutions, by insightsoftware, empower you to design and deploy analytics into the fabric of your organization and products. These analytics integrate with your existing workflows and security models providing a seamless experience where anyone can analyze data, share insights, and make informed decisions.

Learn more at **insightsoftware.com/logi-analytics/**

About insightsoftware

insightsoftware is a leading provider of reporting, analytics, and performance management solutions. Over 30,000 organizations worldwide rely on us to support business needs in the areas of accounting, finance, operations, supply chain, tax, budgeting, planning, HR, and disclosure management. We enable the Office of the CFO to connect to and make sense of their data in real time so they can proactively drive greater financial intelligence across their organization. Our best-in-class solutions provide customers with increased productivity, visibility, accuracy, and compliance.

insightsoftware

US +1 919 872 7800
UK +44 (0) 845 467 4448
AU +61 2 8985 7777
insightsoftware.com