

2021 STATE OF ANALYTICS:  
**HOW DATA LITERACY IMPROVES  
DECISION-MAKING**



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# 2021 State of Analytics: How Data Literacy Improves Decision-Making

Today's fast-paced organizations recognize the role of data literacy in understanding and communicating their data. The more people have access to their data and can interact with it, the more equipped they are to influence and make informed decisions to drive the organization forward.

Data literacy plays the following key roles in how an organization's employees and teams perform:

- Guides the big-picture decisions they make by influencing daily activities.
- Directs their teams' work by helping them achieve objectives, better job performance, and contributions to company success.
- Drives organizations to become data-driven by creating efficiencies to streamline operations.

Data literacy covers a continuum of how employees interpret, understand, and communicate their data. Organizations need to benchmark the data literacy capabilities of their employees to gauge where they need to progress.

This modern take on the data literacy continuum spans the following levels of data knowledge:

- **Data challenged:** Users have no-to-low levels of analytics skills or data access.
- **Data literate:** Users have a comfort level of working with, manipulating, analyzing, and visualizing data.
- **Data aware:** Users can combine past experiences, intuition, judgment, and qualitative inputs and data analysis to make decisions.
- **Data fluent:** Users can go beyond insights and instinct to communicate, collaborate, tell stories, and drive ideas to make decisions based on data.

To understand where users are on the continuum, [Hanover Research](#) surveyed 463 US-based professionals in upper management who work in a digital or analytics software organization. The respondents were familiar with analytics or currently use analytics from business intelligence or data visualization tools.

Hanover Research set out to learn about the following areas:

- The current levels and importance of data literacy for organizations
- Application support for end users along the data literacy continuum
- Whether applications sufficiently support end users at their current levels
- The challenges organizations face in creating a stronger data culture

By reading this report, you'll learn about the current state of data literacy and what you need to reach data fluency for your organization.

# Data literacy correlates with a data-driven organizational culture

“Most application teams—that is 75 percent—consider it “very” or “extremely important” for them to help users become more data literate.

Data literacy is crucial in building and growing a data-driven culture. According to the [2021 State of Analytics: Why Users Demand Better report](#), 77 percent of organizations consider end-user data literacy “very” or “extremely important” in making fast and accurate decisions.

This decision-making culture also demands more democratized data—the concept of data for everyone and every skill level. Decisions based primarily on gut instinct or opinion are too risky for today’s organizations. By combining data democratization with data literacy, a wide range of users can make decisions based on objective, verifiable information from the data they’ve collected.

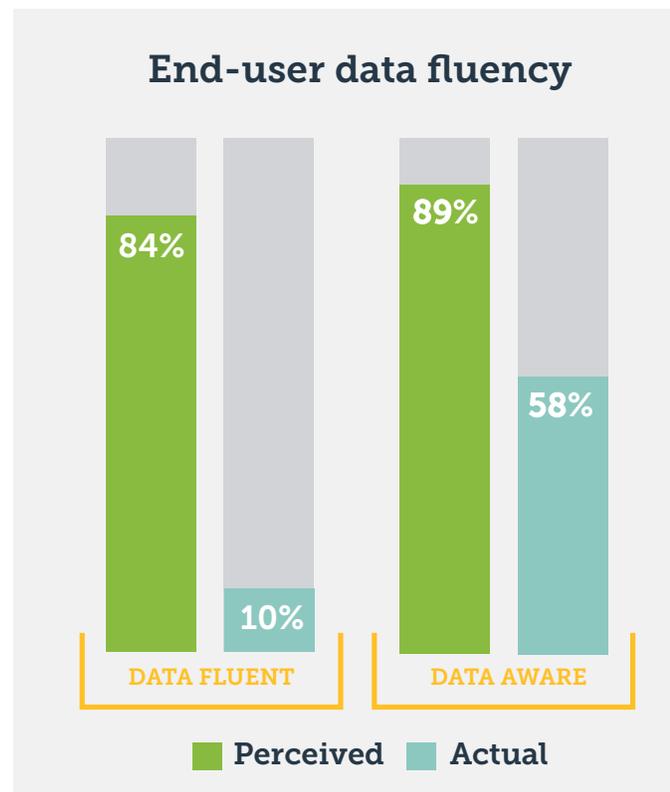
Applications play an important role in nurturing and supporting data literacy. Hanover reported that most application teams—that is 75 percent—consider it “very” or “extremely important” for them to help users become more data literate.

## End-user data fluency is overestimated

End users aren’t as data fluent as their application teams think. According to the survey, Hanover Research found that, based on their abilities, most users are data literate or data aware (76 percent), but only 10 percent are data fluent.

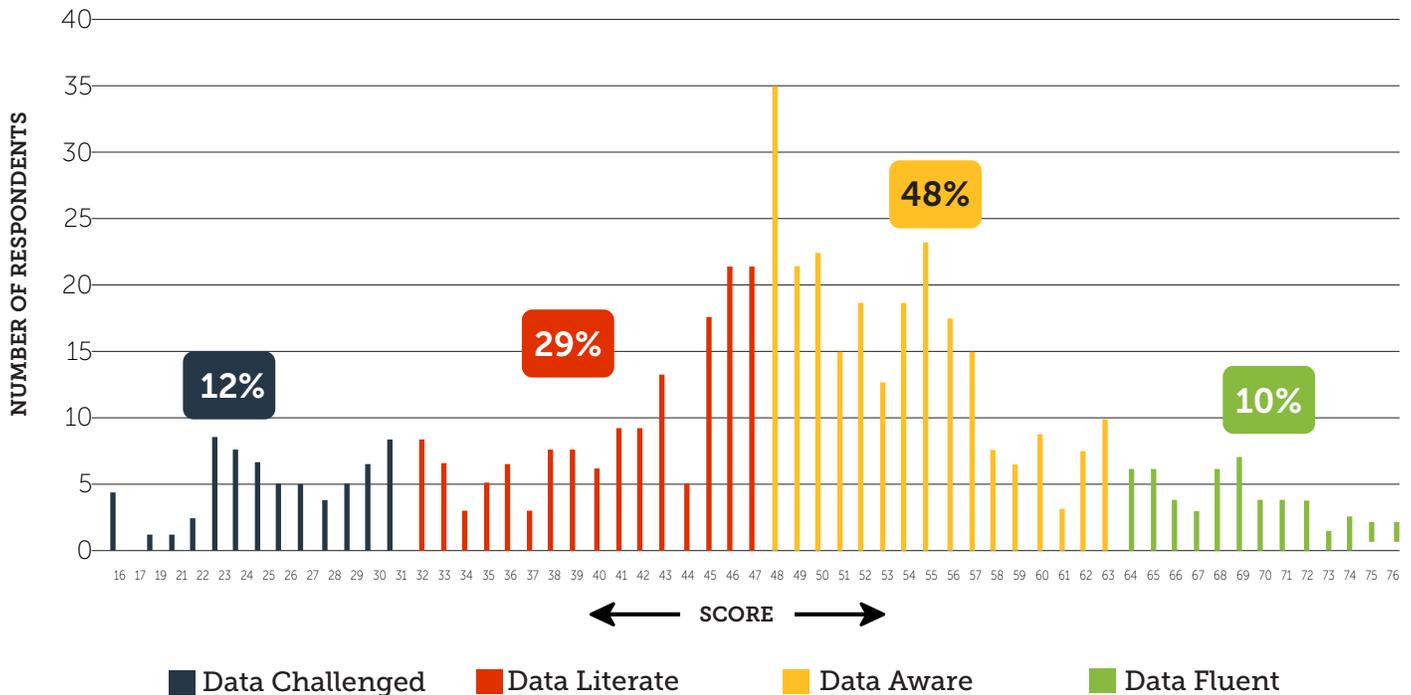
However, the perception that application teams have about their end users is quite the opposite. The survey found that most application teams—84 percent, in fact—think their end users have “high” or “very high” levels of data fluency. When it comes to using their applications, 47 percent of application teams expect their end users to be at least data aware.

Based on this overestimation of end users’ abilities, analytics tend to be ineffective and under-used, hurting overall application adoption. Hanover found that less than 60 percent of end users use even the most basic analytics capabilities. This finding points to analytics that are not user friendly, customizable, or easy-to-navigate. Without these characteristics, organizations experience slow end-user adoption or even application abandonment.



## Figure 1: Range of data literacy among application users

Most users (77 percent) fall in the data literate or data aware categories with only 12 percent of users being data challenged and even fewer being data fluent (10 percent).



## Most of today's applications don't support data literacy

The problem with user adoption and abandonment correlates to how application teams view their applications' ability to support data literacy.

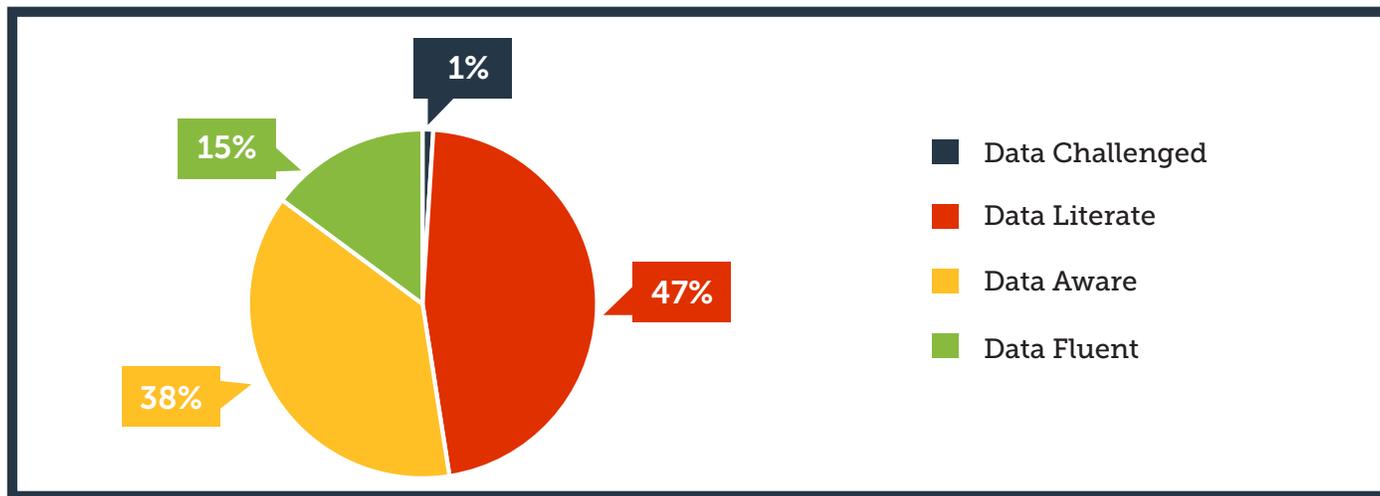
Application teams often think their applications support high levels of data literacy. According to the Hanover survey, 86 percent of application teams think their applications support data-fluent end users, but the results from the survey reveal quite the opposite reality: only 15 percent of applications have the capabilities to support data-fluent end users.

As the findings reveal, application teams show an overconfidence gap. This finding means that most application teams are unaware of their application's analytical failings. Until application teams recognize this gap and begin investing in personalized analytics to accommodate the wide range of data literacy levels, low analytics adoption rates will continue.

"Only 15 percent of applications have the capabilities to support data-fluent end users."

## Figure 2: How applications support end users

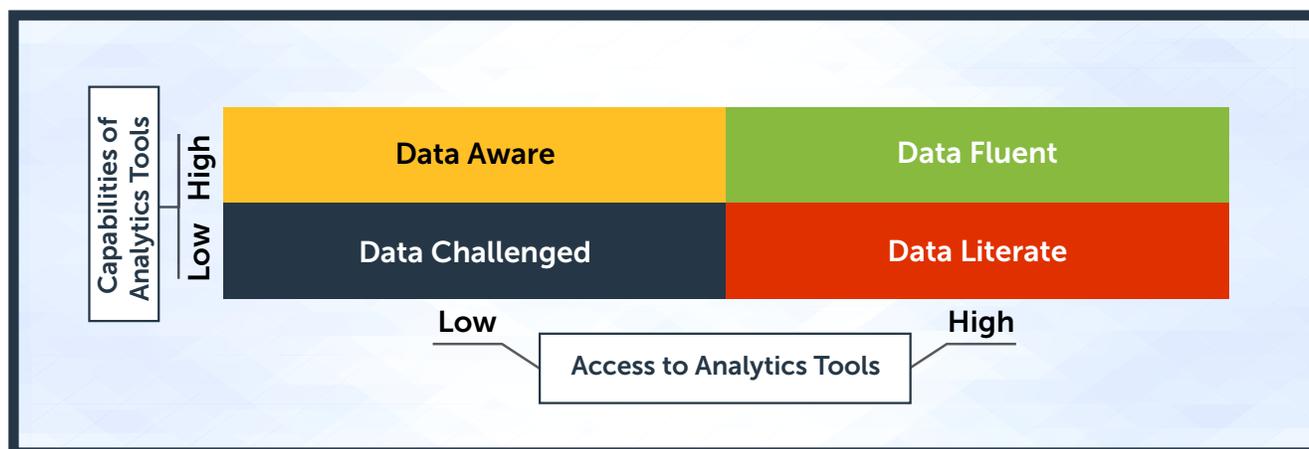
Of applications, 47 percent have the capabilities to support data-literate end users, while only 15 percent can support data-fluent end users.



## Find your end users on the data literacy continuum

See where your end users are on the data literacy continuum based on the following levels:

- **Data challenged:** Low-to-no capabilities of analytics tools or access to analytics tools
- **Data aware:** High capabilities of analytics tools, low or limited access to analytics tools
- **Data literate:** Low capabilities of analytics tools, high access to analytics tools
- **Data fluent:** High capabilities of analytics tools, high access to analytics tools



How can you get your end users to become more data fluent? It starts with data democratization and making analytics accessible and approachable for everyone. When you combine both better analytics capabilities and more analytics access, users progress toward data fluency. Complete data fluency is achievable when all users have customizable self-service analytics tools that are powerful, user friendly, intuitive, and robust.

# End users need applications that democratize data to drive adoption

To increase data-driven decisions across all employees, **organizations need applications that can meet their end users at their level along the continuum.** Often organizations tend to purchase a one-size-fits-all analytics tool to serve the needs of everyone. On the contrary, this approach doesn't work toward improving organizational data literacy and efficiency. The new wave of analytics must be powerful, but personalized and easy-to-use.



## Overcome application challenges

Applications with intuitive analytics play a prevalent role in building and supporting a culture of data literacy among end users. One challenge organizations have is finding applications that are up to the test. The Hanover survey found that 48 percent of applications intended for data-challenged and data-literate end users cannot support 58 percent of data-aware or data-fluent end users, which is where one-size-fits-all approaches fail.

A second challenge for organizations is that they have trouble finding talent resources—that's 43 percent according to the Hanover survey. Similarly, 40 percent of respondents indicated they have difficulty in training employees on using the applications.

A third challenge is a lack of advanced data functions to create insights. Hanover reports that most organizations' application end users are most likely to be able to combine and blend data from multiple sources. However, in their survey, only 28 percent of respondents reported that they are least likely to be able to use visuals, analytic dashboards, or reports to consume data.

"The Hanover survey found that 48 percent of applications intended for data-challenged and data-literate end users cannot support 58 percent of data-aware or data-fluent end users, which is where one-size-fits-all approaches fail."

## Build a culture of data literacy

The key to overcoming these challenges is to **choose applications that support end users along the data literacy continuum**. In doing so, organizations promote higher levels of data literacy and achieve a stronger, more widespread data culture.

Applications that support a culture of data literacy have the following characteristics:

- Provide user-friendly tools that encourage more users to access and use the data.
- Personalize analytics capabilities with self-service to help more users understand the data and make it more actionable.
- Include data and analytics within the workflow for a seamless user experience.

For organizations to be data-driven, their users need to become more data fluent. To achieve this level, **users need dynamic analytics capabilities and direct access to analytics right in their workflow**. By choosing applications that support data fluency, users will engage with them more often, making it easier for them to interpret, understand, and communicate the value of the data.

**READ OUR RESEARCH-BASED, STEP-BY-STEP GUIDE  
TO JUMPSTART YOUR ANALYTICS JOURNEY**

**The Hitchhiker's Guide to  
Embedded Analytics**



# ABOUT LOGI ANALYTICS

Logi Analytics, an insightsoftware company, empowers the world's software teams with the most intuitive and developer-grade embedded analytics solutions. The Logi Analytics solution leverages your existing technology stack, so you can quickly build, manage, and deploy your application. The company recently achieved a perfect score in the "recommend" category and was recognized as an "overall leader" in customer experience and vendor credibility in the [2021 Wisdom of Crowds BI Market Study](#) by Dresner Advisory Services. Logi Analytics is headquartered in McLean, Virginia, with offices in Ireland, England, Ukraine, and China. Learn more about what's possible with Logi Analytics at [LogiAnalytics.com](https://LogiAnalytics.com).

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