How to Fast Track Your Company’s Data Literacy Efforts with NLG
More than likely, you’ve heard similar ideology on the importance of empowering everyone—no matter their skill set—to gather and analyze data on their own. It sounds great in practice, and we hope to get there one day, but what good is accessible data for all to readily use if everyone cannot actually digest, understand, and then effectively communicate and talk about it?

For us to turn this idea about the rise of citizen data scientists and self-serving data analysis into a reality, we will first have to take a few steps back and get to the root of the problem: data literacy.

### Why Data Literacy Is Crucial
#### In Business Intelligence

Data literacy is the ability to interpret the data being presented—to understand what the data means, what trends it reveals, how to talk about it, and ultimately to know what course of action to take. Making data literacy a top priority for your organization is crucial for implementing a successful BI strategy.

#### Rapid Growth of Data Collection and Analysis

We are collecting more data than ever while simultaneously deploying advanced models via new BI platforms to analyze it. As we continue to evolve into a new data-driven world, we cannot afford to leave people behind.

#### Bridging The Skills Gap

Not everyone is equipped with the skills to analyze data to make better decisions. Furthermore, there are not enough data analysts and scientists to supplement this lack of expertise. In order to bridge this skills gap and empower people to become their own self-serving analyst, we have to teach everyone the appropriate skills to understand their data.

#### More Powerful Data Storytelling

As the data revolution progresses and the need to improve data literacy consequently rises, using automated tooling that enables your company to scale data expertise will be essential.
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Achieving Company-Wide Data Literacy

So how do you go about making data more accessible to use, while simultaneously making it more accessible to understand? To make company-wide data literacy a reality, we at Automated Insights developed a natural language generation (NLG) platform that generates automated written analytics directly inside your data visualization tools.

How exactly can NLG help employees become data literate? Let’s first take a look at the four key stages of truly understanding your data:

STAGE 1
Familiarity of Data

STAGE 2
Contextual Understanding of Data

STAGE 3
Interpretation of Data

STAGE 4
Questioning of Data

Investing in easy-to-use BI tools like Tableau, MicroStrategy, Qlik, TIBCO Spotfire, and Power BI is a good first step in making data accessible, but to truly make your investments impactful you also have to invest in tools that make your data easy-to-understand.

“Visualizations contextualized and enriched by easy-to-understand narratives, either analyst or NLG-created, accelerate the time to insight. They also improve the accuracy of insights and conclusions made from analytic content delivered to, and shared with, an expanded set of users who may have limited analytics skills.”

Gartner, Technology Insight for Modern Analytics and Business Intelligence Platforms, September 2017

If the end goal is for everyone in your organization to have the confidence to analyze data and make their own decisions, then it is essential to gradually build up their understanding of the data in each of these stages. We believe that NLG can accomplish this in a manner that is fast, cost-effective, and scalable, while simultaneously freeing up the manual reporting and coaching your data teams were originally tasked with. Here is a detailed look at each of the four stages and how NLG can lead the charge in achieving company-wide data literacy.
**STAGE 1**

**Familiarity of Data**

First things first, what are we looking at? In this initial phase of data understanding we get familiar with our datasets by learning the metrics, how they are calculated, and possibly how we collected them or what group they represent.

Oftentimes, non-data experts are too reluctant to even log in and engage with a dashboard because of this initial step. NLG can help solve this problem by providing insights that are in an easy-to-understand format, giving you a jumpstart on understanding your data.

*NLG provides insights that are presented via clear, human-sounding language, empowering people to be data literate without having to be a data expert.*

Automated Insights allows me to scale my team. It’s like having an expert data analyst guide us through our Tableau dashboards, allowing us to make better and faster decisions.

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**STAGE 2**

**Contextual Understanding of Data**

Now that we understand what we are looking at, it is time to move onto the next phase and get a contextual understanding of the data. When we approach data, we need to keep in mind that everyone has a different perspective and thus requires different insights. How does the data relate to your position and strategic goals of the company?
We understand different business colleagues have different roles within different departments, so we configured our NLG platform with the ability to customize the narrative for each team or person’s perspective.

NLG can teach each person in the frame that makes the most sense for them, delivering role-based insights that are relevant to org structures, job functions, and individual goals.

We can have 40 or 50 team members seeking answers from a TIBCO Spotfire dashboard at any time. Whether they’re from Marketing and Sales or the BI team, it allows every user to dissect the information and obtain the answers they’re seeking at the press of a button.

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**Sasha Teska**
Business Intelligence Manager, Arterra Wines Canada

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**STAGE 3**

**Interpretation of Data**

You are comfortable with the data and have a strong grasp of what it means to you. So, now what? In this next phase of data understanding, it is time to do something about it. One should be able to decipher why things are playing out in a certain way and what course of action to take.

Knowing what is happening with your data is a good first couple of steps. However, NLG can take it to the next level by showing you why things are happening, calling out key drivers affecting a certain metric. From there, NLG can provide insights that are prescriptive, telling people what they need to do about what they are seeing.
### STAGE 4  🌟  🌟  🌟  🌟  🌟

#### Questioning of Data

The final stage of achieving data literacy bliss is when people have the confidence to answer their own questions, thus becoming a self-service analyst (or commonly referred to as a citizen data scientists).

Once people experience the power of NLG over time, we teach them to be data literate and data explorers. This is the ultimate way to make advanced analytics easy and approachable: coach them through NLG to understand what they are seeing, then coach them on how to start doing their own drill-down and analysis.

### How to Fast Track Your Company’s Data Literacy Efforts with NLG

The API integration with Automated Insights lowers the learning curve for business users by guiding them through a visualization with annotations.

> “NLG delivers insights that are prescriptive and tell you what action to take, shifting behaviors and conversations from ‘I think’ to ‘I know.’

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**Automated Insights® Analysis**

- Diverting shipments from Federal Amalgated Shipping will help us attain our on-time percentage goal of 75%.

- Shift deliveries to Delagato’s Express Freight LLC where possible to take advantage of their low, 0.7 hour average delay.

- When possible, consider moving departures away from 21:00, which sees high rates of delayed shipments.

- Reach out to Accent on Style and Calexico Inc. to determine why their shipments have such a high average delay time.

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**Shipping KPIs**

**Delay Details**
Business Literate Is Not Enough

According to Gartner, “by 2020, natural-language generation and artificial intelligence will be a standard feature of 90% of modern BI platforms.”

In order to make good decisions and be successful, it used to be the case that we all needed to be business literate, but now we have to become data literate to make those same business decisions. If we want to empower everyone—from marketing and sales, to procurement and finance—to use data and make their own decisions, we can’t afford to leave anyone behind when it comes to data literacy.

About Automated Insights
Automated Insights (Ai) is the creator of Wordsmith, the world’s first self-service natural language generation platform for the enterprise. Automated Insights empowers organizations to generate human-sounding narratives from data, making it easy to produce real-time, written analytics, personalized reports, and stories at scale. The Wordsmith platform is utilized by companies and partners, including the Associated Press, Cisco, MicroStrategy, NVIDIA, Tableau, TIBCO, and Qlik, in over 50 data-driven industries, such as business intelligence, financial services, ecommerce, sports and entertainment, and media. AutomatedInsights.com

Resources
1. Gartner, Technology Insight for Modern Analytics and Business Intelligence Platforms, September 2017
2. Gartner, Augmented Analytics Is the Future of Data and Analytics, Rita L. Sallam, Cindi Howson, Carlie J. Idoine, 27 July 2017