Constant change and other limitations

Move beyond data limitations

Video: Meaningful metrics
4 min

Reading: How to identify key metrics for a project
20 min

Reading: North star metrics
20 min

Reading: Bridge the gap from current state to ideal state
20 min

Ungraded Plugin: Identify: Meaningful metrics
15 min

Reading: Case study: USDM - Selecting key project metrics
20 min

Practice Quiz: Test your knowledge: Move beyond data limitations
3 questions

Review: Context is crucial for purposeful insights

[Optional] Review Google Data Analytics Certificate content

Bridge the gap from current state to ideal state

Bridge the gap

Business intelligence professionals continually monitor processes and systems to determine if it's necessary to make updates for greater efficiency and optimization. These professionals explore ways to bring the current state closer to the ideal state. They do this through a process called gap analysis, which is a method for examining and evaluating the current state of a process in order to identify opportunities for improvement in the future.

Gap analysis involves understanding where you currently are compared to where you want to be so that you can bridge the gap. BI uses gap analysis to do all kinds of things, such as improve data delivery systems or create dashboard reports.

For example, perhaps a sales team uses a dashboard to track sales pipeline progress that has a six-hour data lag. They use this dashboard to gather the most up-to-date information as they prepare for important meetings. The six-hour lag is preventing them from accessing and sharing near-real-time insights in stakeholder meetings. Ideally, the delay should be one hour or less.

Setting direction with stakeholders

The first step in bridging the gap is to work with stakeholders to determine the right direction for this BI project. Establishing stakeholder needs and understanding how users are interacting with the data are important for assessing what the ideal state of a system actually is. What needs do stakeholders have that aren't being met or could be addressed more efficiently? What data is necessary for their decision-making processes? Working closely with stakeholders is necessary to understand what they actually need their BI tools to do.

The BI professionals collect information and learn that, as the company grew, it opened offices across the country. So, the sales teams are now more dispersed. Currently, if a team member from one office updates information about a prospective client, team members from other offices won't get this update until the workday is almost over. So, their goal is to reduce the data delay to enable better cross-team coordination.

Context and data quality

In addition to identifying stakeholder needs, it's also important for the BI professional to understand the context of the data they interact with and present. As you know, context is the condition in which something exists or happens; it turns raw data into meaningful information by providing the data perspective. This involves defining who collected it or funded its collection; the motivation behind that action; where the data came from; when; the method used to collect it; and what the data could have an impact on. BI professionals also need to consider context when creating tools for users to ensure that stakeholders are able to interpret findings correctly and act on them.

It's also critical that BI professionals ensure the quality and integrity of the data stakeholders are accessing. If the data is incorrect, the reporting tools won't be accurate, and stakeholders won't be able to make appropriate decisions — no matter how much context they have been given.

Now, the sales team's BI professional needs to identify data sources and the update frequency for each source. They discover that most of the key data sources update every 15 minutes. There are a few nonessential data sources that rarely get updated, but the team doesn't actually have to wait until those data sources are updated to use the pipeline. They're also able to confirm that the data warehouse team will verify these data sources as being clean and containing no duplicates or null fields that might cause issues.

Building structures and systems

A large part of a BI professional's job is building structures and systems. This means designing database storage systems, organizing the data, and working with database governance specialists to maintain those systems. It also involves creating pipeline tools that move and transform data automatically throughout the system to get data where it needs to go to be useful.

These structures and systems can keep data organized, accessible, and useful for stakeholders during their decision-making process. This empowers users to access the data they need when they need it — an ideal system should be organized and structured to do just that. To address the sales team's needs, the BI analyst in this case designs a new workflow through which data sources can be processed simultaneously, cutting down processing time from 6 hours to less than an hour.

Sharing findings

If you are coming to this course from the Google Data Analytics Certificate, you may already be familiar with the share stage of the data analysis process. This is the point at which a data analyst creates data visualizations and reports and presents them to stakeholders. BI professionals also need to share findings, but there are some key differences in how they do so. As you have been learning, creating ways for users to access and explore data when they need it is a key part of an ideal BI system. A BI professional creates automated systems to deliver findings to stakeholders or dashboards that monitor incoming data and provide current updates that users can navigate on their own.

In the sales team dashboard example, the final output is a dashboard that sales teams across the country use to track progress in near-real time. In order to make sure the teams are aware of the updates, the team's BI analyst shares information about these backend improvements, encouraging all sales teams to check the data at the top of the hour before each meeting.

Acting on insights

BI focuses on automating processes and information channels in order to transform relevant data into actionable insights that are easily available to decision-makers. These insights guide business decisions and development. But the BI process doesn't stop there: BI professionals continue to measure those results, monitor data, and make adjustments to the system in order to account for changes or new requests from stakeholders.

After implementing the backend improvements, the sales team also creates system alerts when data processes lag behind so automatic notifications alert the sales teams of data delay. That way, they could know exactly how well the system is working and if it needs to be updated again in the future.

Conclusion

A large part of a BI professional's work revolves around identifying how current systems and processes operate, evaluating potential improvements, and implementing them so that the current system is closer to the ideal system state. Throughout this course, you'll learn how to do that by collaborating with stakeholders, understanding context, maintaining data quality, sharing findings, and acting on insights.

Mark as completed