Use multiple communication strategies to reach your audience

Being able to communicate in multiple formats is a key skill for data analysts. Listening, speaking, presenting, and writing skills will help you succeed in your projects and in your career. This reading covers effective communication strategies, including examples of clearly worded emails for common situations.

Here's an important first tip: Know your audience! When you communicate your analysis and recommendations as a data analyst, it's vital to keep your audience in mind.

Be sure to answer these four important questions related to your audience:

1. **Who is your audience?**
2. **What do they already know?**
3. **What do they need to know?**
4. **How can you best communicate what they need to know?**

Project example

As a data analyst, you'll get plenty of requests and questions through email. Let's walk through an example of how you might approach answering one of these emails. Assume you're a data analyst working at a company that develops mobile apps. Let's start by reviewing answers to the four audience questions we just covered:

Who is your audience?

Kiri, Product Development Project Manager

What do they already know?

Kiri received updates about our project from its planning stages, including the most recent project report, sent two weeks ago.

What do they need to know?

Kiri needs an update on the analysis project's progress and needs to know that the executive team approved changes to the data and timeline. You know that adding a new variable to the analysis will

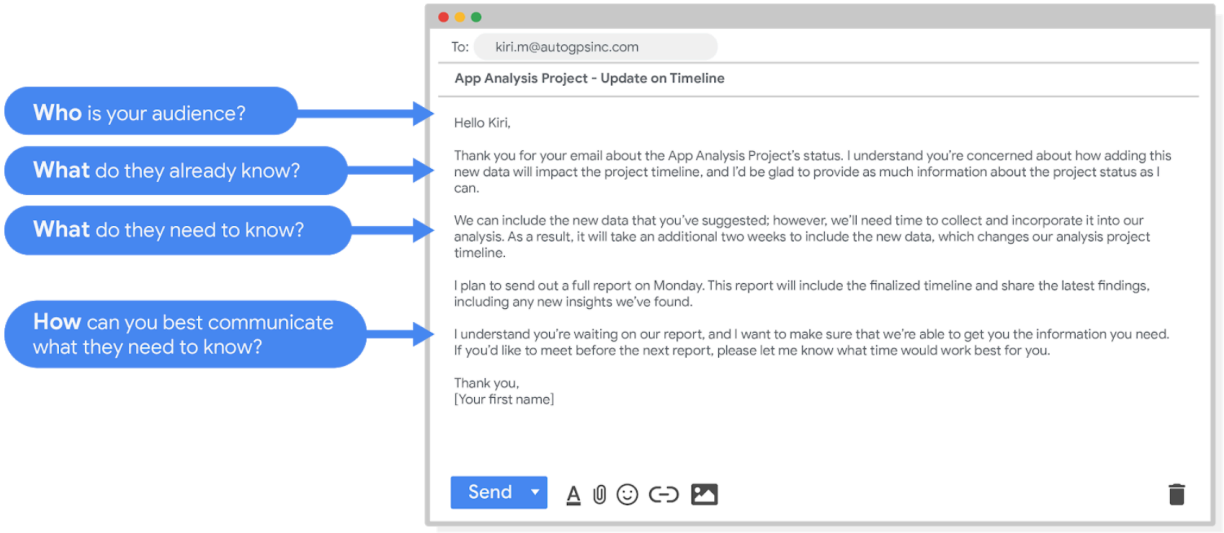
impact the current project timeline. Kiri will need to change the project's milestones and completion date.

How can you best communicate what they need to know?

You can start by sending an email update to Kiri with the latest timeline for the project, but a meeting might be necessary if she wants to talk through her concerns about missing a deadline.

Updated timeline email sample

After answering the audience questions, you have the key building blocks you need to write an email to Kiri. Here's an example of how these questions can help organize the flow of the email message:



Hello Kiri, (who is your audience?)

Thank you for your email about the app analysis project's status. I understand you're concerned about how adding this new data will impact the project timeline, and I'd be glad to provide as much information about the project status as I can. (What do they already know?)

We can include the new data that you've suggested however, we'll need time to collect and incorporate it into our analysis. As a result, it will take an additional two weeks to include the new data, which changes our analysis project timeline. (What do they need to know?)

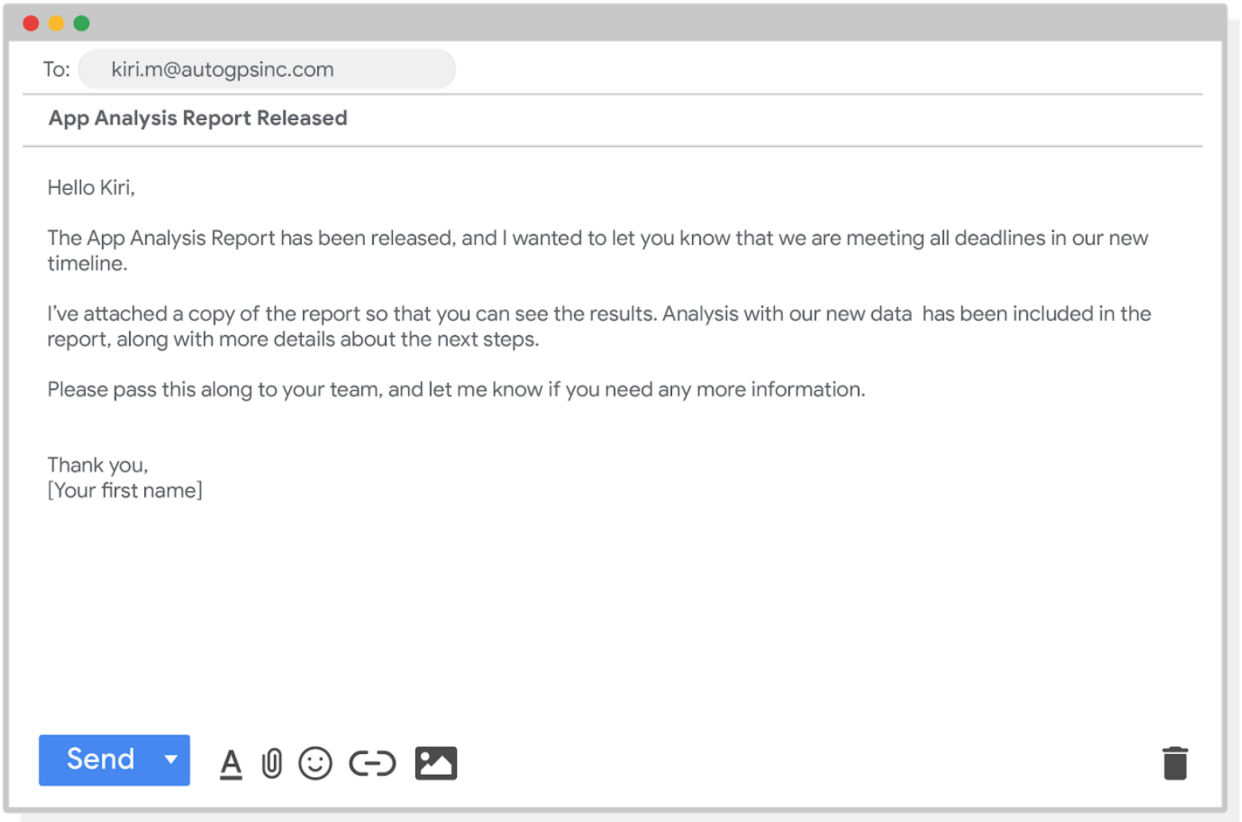
I plan to send out a full report on Monday. This report will include the finalized timeline and share the latest findings, including any new insights we've found.

I understand you're waiting on our report, and I want to make sure that we're able to get you the information you need. If you'd like to meet before the next report, please let me know what time would work best for you. (How can you best communicate what they need to know?)

Thank you,
(your first name)
After receiving your email, Kiri will have a clearer view of the changes to the analysis project and will be able to make adjustments to work with the new timeline.

Project follow-up email sample

After the next report is completed, you can also send out a project update offering more information. The email could look like this:



Hello Kiri,

The app analysis report has been released, and I wanted to let you know that we are meeting all deadlines in our new timeline.

I've attached a copy of the report so that you can see the results. Analysis with our new data has been included in the report, along with more details about the next steps.

Please pass this along to your team, and let me know if you need any more information.

Thank you,
[your first name]
Good communication keeps stakeholders updated on progress and ultimately helps prevent problems. Carefully worded responses are key. Whether you gather and address feedback using email, meetings, or reports, everyone you work with will know what to expect. As a result, they will be able to better manage their own schedules, resources, and teams.

Limitations of data

Data is powerful, but it has its limitations. Has someone's personal opinion found its way into the numbers? Is your data telling the whole story? Part of being a great data analyst is knowing the limits of data and planning for them. This reading explores how you can do that.

The case of incomplete (or nonexistent!) data

If you have incomplete or nonexistent data, you might realize during an analysis that you don't have enough data to reach a conclusion. Or, you might even be solving a different problem altogether! For example, suppose you are looking for employees who earned a particular certificate but discover that certification records go back only two years at your company. You can still use the data, but you will need to make the limits of your analysis clear. You might be able to find an alternate source of the data by contacting the company that led the training. But to be safe, you should be up front about the incomplete dataset until that data becomes available.

Don't miss misaligned data

If you're collecting data from other teams and using existing spreadsheets, it is good to keep in mind that people use different business rules. So one team might define and measure things in a completely different way than another. For example, if a metric is the total number of trainees in a certificate program, you could have one team that counts every person who registered for the training, and another team that counts only the people who completed the program. In cases like these, establishing how to measure things early on standardizes the data across the board for greater reliability and accuracy. This will make sure comparisons between teams are meaningful and insightful.

Deal with dirty data

Dirty data refers to data that contains errors. Dirty data can lead to productivity loss, unnecessary spending, and unwise decision-making. A good data cleaning effort can help you avoid this. As a quick reminder, data cleaning is the process of fixing or removing incorrect, corrupted, incorrectly formatted, duplicate, or incomplete data within a dataset. When you find and fix the errors - while tracking the changes you made - you can avoid a data disaster. You will learn how to clean data later in the training.

Tell a clear story

Avinash Kaushik, a Digital Marketing Evangelist for Google, has lots of great tips for data analysts in his blog: Occam's Razor. Below are some of the best practices he recommends for good data storytelling:

- **Compare the same types of data**: Data can get mixed up when you chart it for visualization. Be sure to compare the same types of data and double check that any segments in your chart definitely display different metrics.
- **Visualize with care**: A 0.01% drop in a score can look huge if you zoom in close enough. To make sure your audience sees the full story clearly, it is a good idea to set your Y-axis to 0.
- **Leave out needless graphs:** If a table can show your story at a glance, stick with the table instead of a pie chart or a graph. Your busy audience will appreciate the clarity.
- **Test for statistical significance:** Sometimes two datasets will look different, but you will need a way to test whether the difference is real and important. So remember to run statistical tests to see how much confidence you can place in that difference.
- **Pay attention to sample size**: Gather lots of data. If a sample size is small, a few unusual responses can skew the results. If you find that you have too little data, be careful about using it to form judgments. Look for opportunities to collect more data, then chart those trends over longer periods.

Be the judge

In any organization, a big part of a data analyst's role is making sound judgments. When you know the limitations of your data, you can make judgment calls that help people make better decisions supported by the data. Data is an extremely powerful tool for decision-making, but if it is incomplete, misaligned, or hasn't been cleaned, then it can be misleading. Take the necessary steps to make sure that your data is complete and consistent. Clean the data before you begin your analysis to save yourself and possibly others a great amount of time and effort.