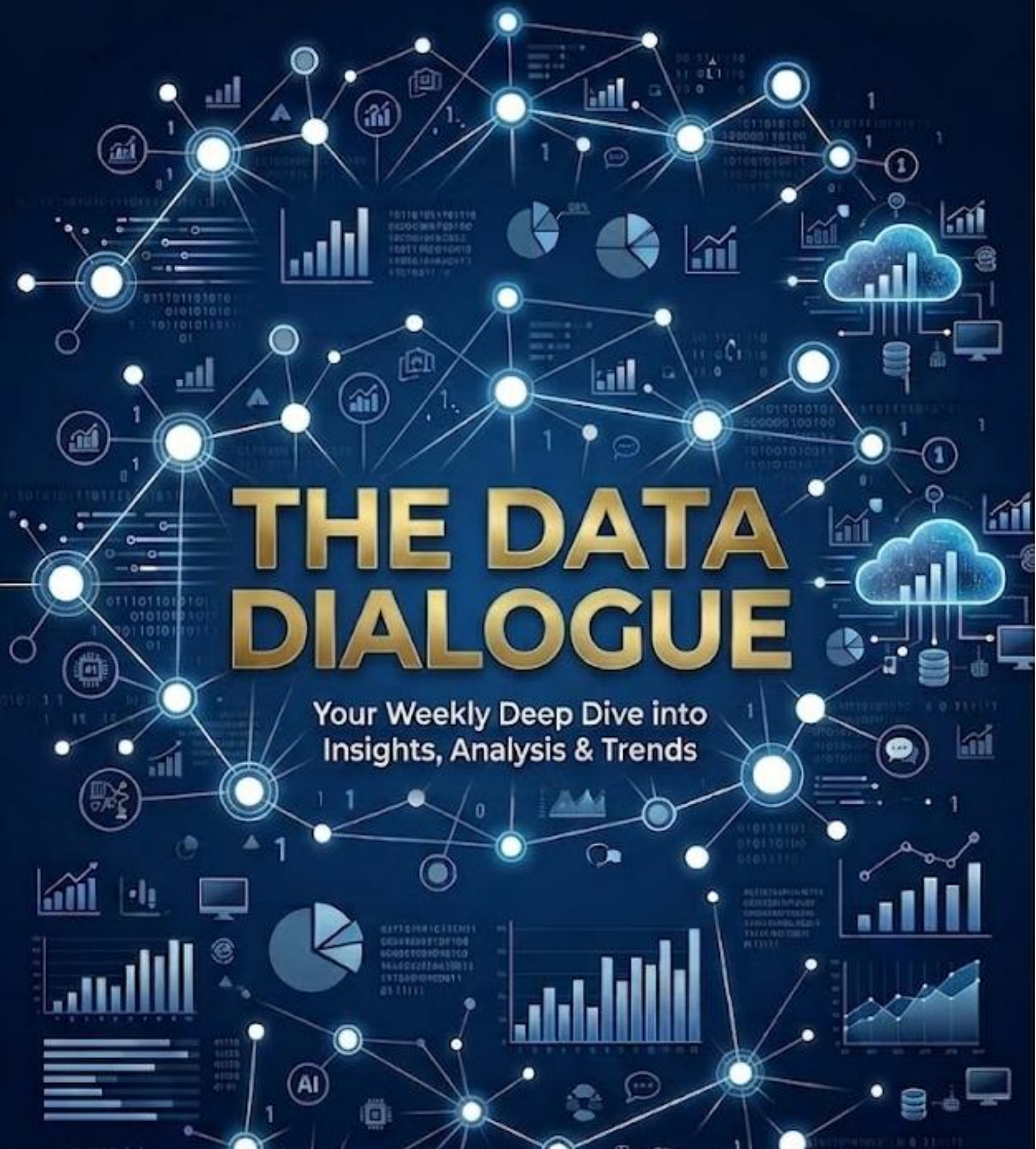
VOLUME 1| ISSUE 2| JULY 2026



The Data Dialogue.

Simplified. Not Simplistic

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In-Focus

Data analysis or Data Analytics? Start from the End

After years of studying and teaching, and seeing the growing demand for data analytics in the job market, I have come to realize that it is worth revisiting a question that many people still ask: What is the difference between data analysis and data analytics? As a start, statistics is a must-have background for both tracks. Yet, both use and approach statistical concepts with different mindsets. Loosely speaking, a regression line for an academic researcher or a statistician (data analysis) is a trend-line for a business analyst (data analytics). In addition, when making a decision, metrics of what makes "a good model" to move forward with differ. While an academic researcher cares about obtaining statistically significant results to make sure that the relationship merits importance, a business analyst can launch a marketing campaign if predictive accuracy is around 70-80% without worrying about the p-value, especially if expected business value outweighs the uncertainty. In academic research, once data are collected at a specific point in time or over a specific period, time becomes encapsulated, but a business analyst wrestles with time to evolve business overtime, they like to speed and rush the timeline for profitability while receiving data inflows. These are few examples of how both tracks use the same concepts differently.

Statistics provides the analytical foundation for both tracks. However, modern data analytics extends beyond statistical analysis by integrating programming, data management, and visualization into a scalable workflow. This is where programming languages such as Python and R become especially valuable. As high-level programming languages, they bridge academic research and industry to support machine learning, big data analysis, web scraping and scalable data pipeline development. When the researcher or business analyst becomes proficient in using these programming languages, they acquire foundational skills for careers of data scientist/data engineer (two closely related roles, with key differences in the workflow & responsibilities). In the following infographic, I highlight the key differences between data analysis and data analytics

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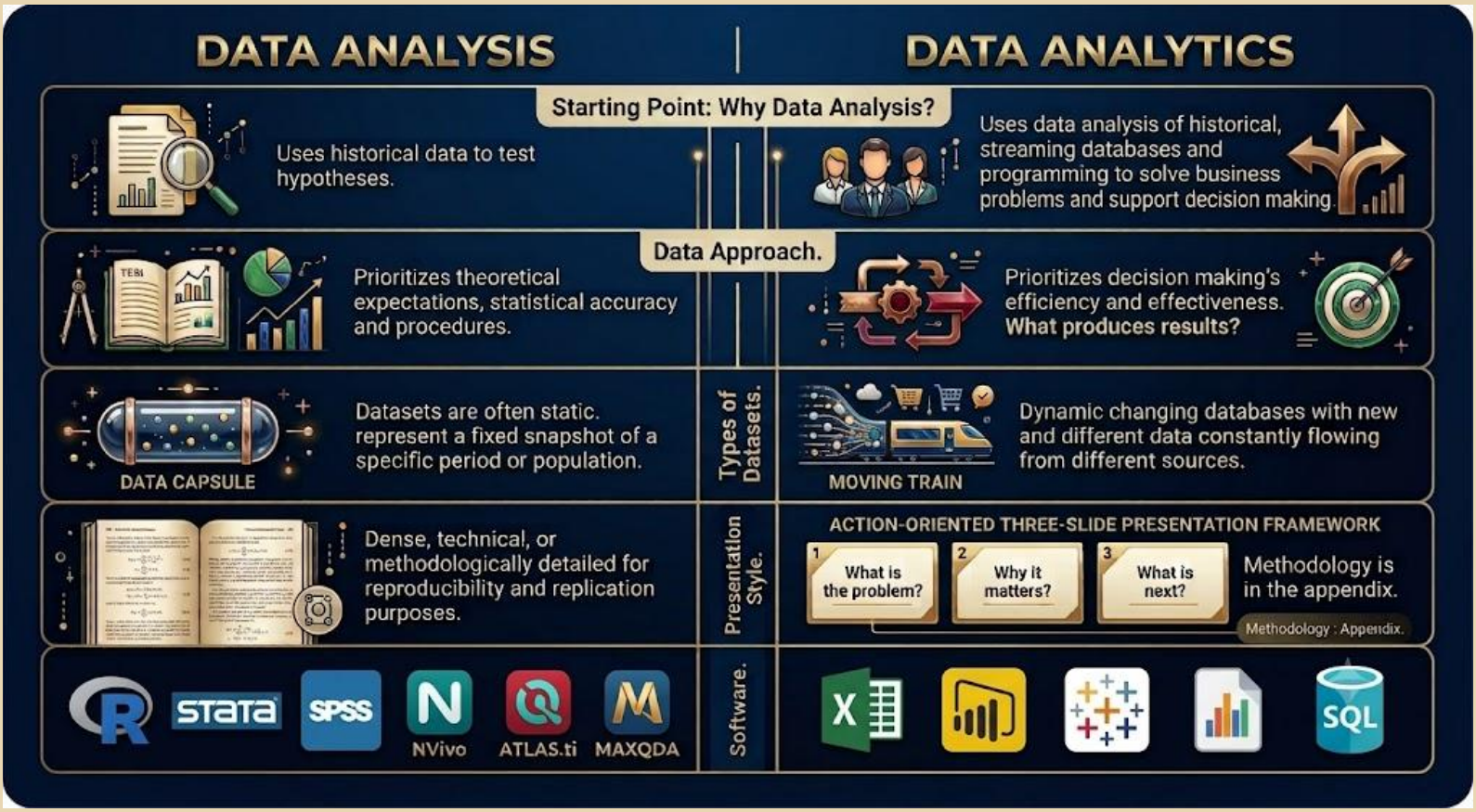

Data analysis and data analytics are not competing fields; on the contrary, they complement each other. At the same time, recognizing their differences should help instructors tailor their content and teaching approaches to different learners and guide learners when signing up for courses. Learners should choose which track to pursue based on how they envision their future career goals and instructors should design their courses based on specific objectives. Think, choose and plan by starting from the end.

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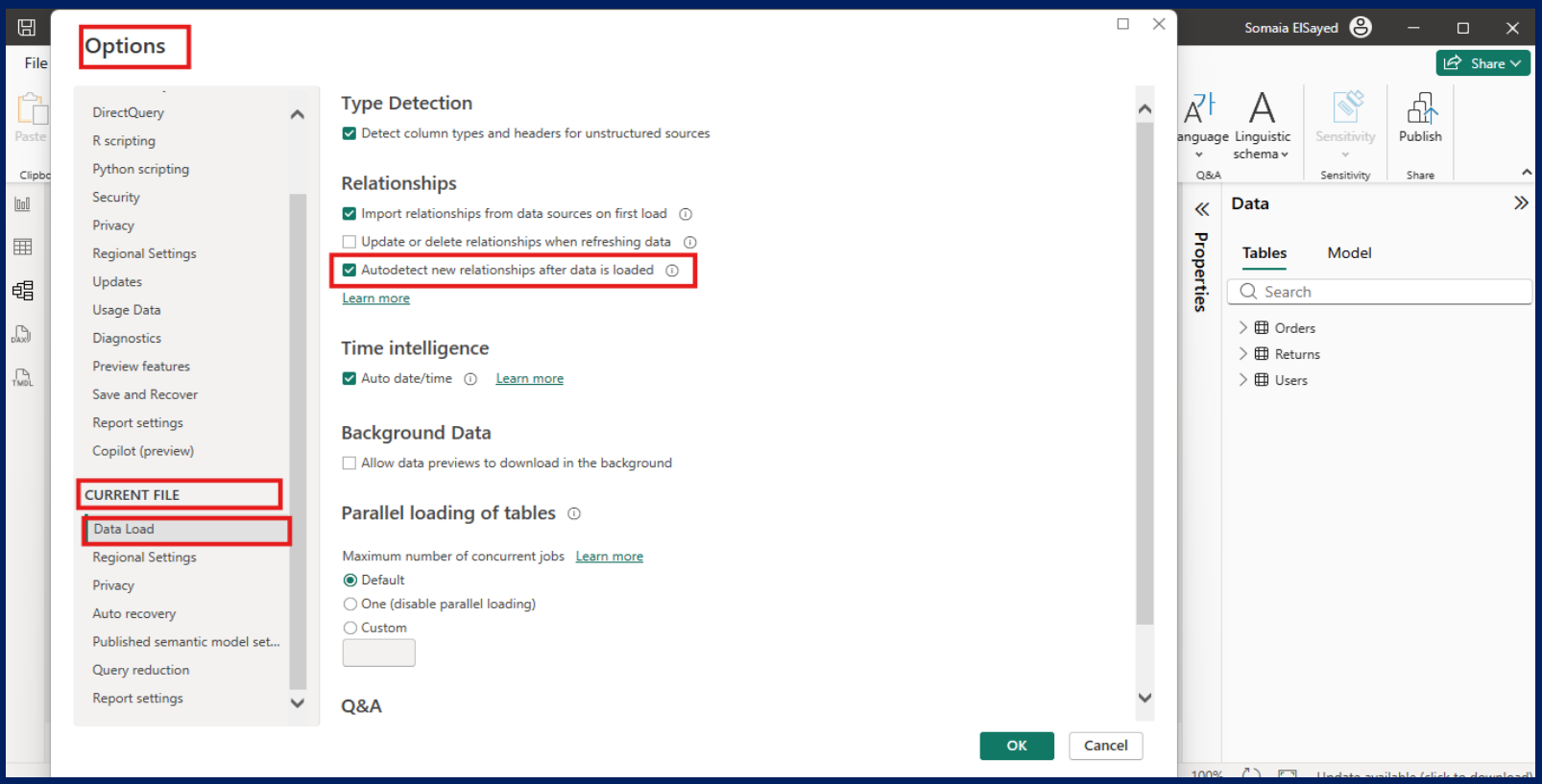
Tools

Relationships Auto-Detection in Power BI

When loading data in Power BI, the software has the ability to auto-detect relationships between different tables. To make sure this feature is enabled, follow the following steps:

File → Options and Settings → Options → Current File → Data Load → Relationships → make sure to check the first and third statement as in the snapshot below



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Pitfall Patrol

🔴 Checking the middle box in relationships (Update or delete relationships when refreshing data)

🟢 In 99% of the cases, it is better to keep this box unchecked.

Why?

A data analyst in a company is like an architect designing an airport. Customizing a model's code, specifying constraints, and establishing relationships is exactly like building the walls, defining corridors, and directing paths for different passenger categories. These elements form the foundational framework governing how data (individual passengers) flows in from various routes. Flight boarding screens resemble the visual cards and dashboards the analyst develops for other employees.

Now, imagine if the architect allowed a robot to shift the walls every time a new passenger arrived, without any human oversight. What would happen? The walls would collapse (the customized model fails and the code breaks), corridors disappear, and passengers (new data points) get stranded because they no longer know how to reach their gates. Consequently, all boarding screens (dashboards) display error messages because passengers and pilots (data) fail to show up. Furthermore, with the walls removed, passport control checkpoints (the model's security protocols) collapse. Passengers bypass security filters, allowing unauthorized individuals to walk into once-restricted confidential zones. This chaotic scenario perfectly embodies what happens when you allow Power BI to autodetect, update, or delete relationships upon refreshing data. You ultimately end up with a broken model, error-ridden visuals, and severe security threats to your company’s data privacy.

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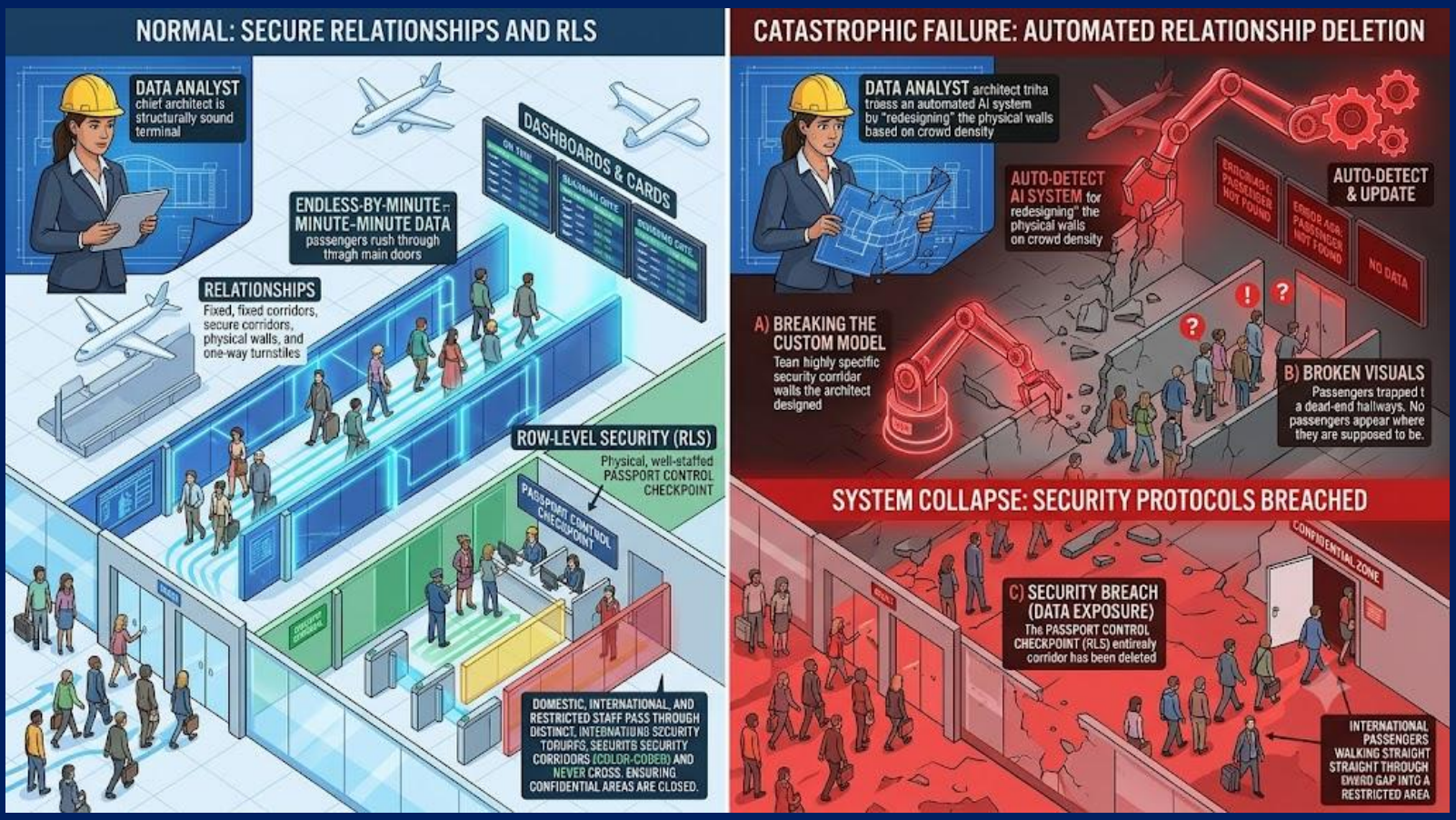
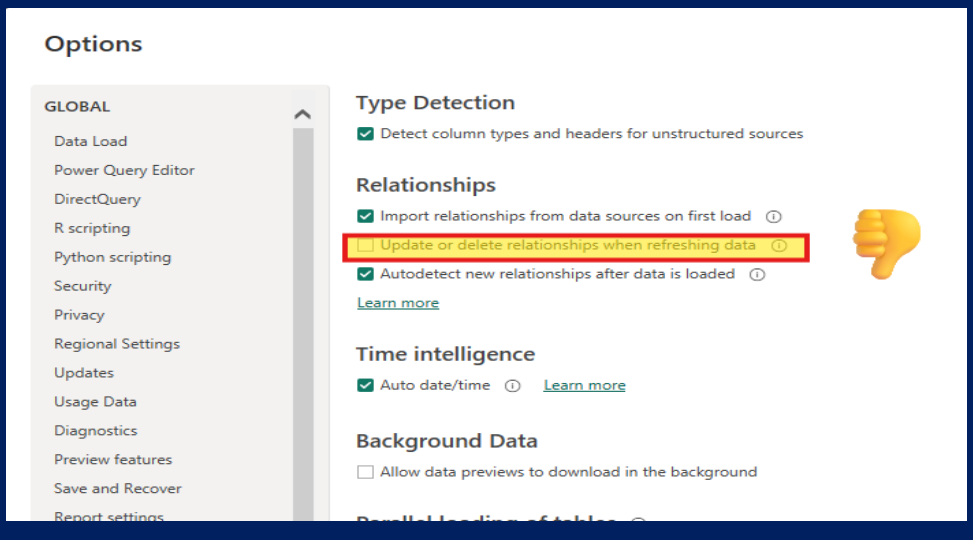


So, next time, please leave this box unchecked.



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Pandora's Box

Which to Learn First: Power BI? Or SQL?

There is no universally correct answer for this question. Depending on your career goals and personality; you might go down to one of the following paths:

First Path*:*

Excel → SQL → Power BI → Python.

This route teaches the logic behind extracting and transforming data, mapping closely to professional data analyst workflows. It builds a strong data foundation first.

Second Path:

Excel → Power BI → SQL → Python.

This method helps develop business thinking and metric communication by allowing learners to quickly create functional dashboards and see results. This path reduces initial technical barriers for learners to keep motivated.

Before you Go

Do you have an interesting data story to share? If so, send us a punchy 250 words describing this story, what happened? How did you handle it? What did you learn?

If it's humanized, we'll publish it next week with your name, title and link to your profile.

Disclaimer: *"We reserve the right to edit all submissions for conversational tone, length, and formatting to ensure it matches the Data Dialogue voice"*

You will find the submission button on my website.