DATA ANALYTICS

- Data is everywhere.
- Ask questions with Data-Driven Decisions

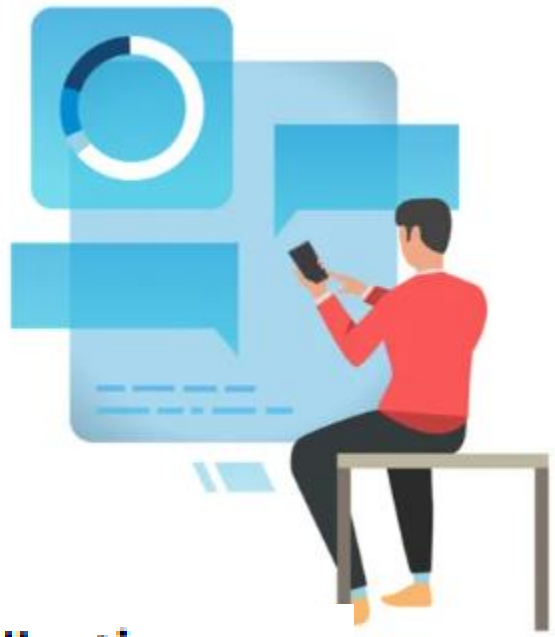
Data is everywhere.

> Big Data is everywhere today. Here are five ways it's used in your daily life - that you may not even realize are taking place around you.

5 Ways It’s used in daily life

1. Mobile maps and GPS
2. Online Shopping
3. Urban Planning
4. Energy Consumption
5. Data-driven decisions

Data-Driven Decisions



Data-driven decisions refer to **the process of making decisions supported by a thorough analysis and understanding of relevant and specific data**. Rather than relying solely on intuition, experience or personal opinion, data-driven decisions involve the systematic use of quantifiable data and empirical evidence to guide and support decision-making.

Data-driven decision making requires a robust infrastructure for collecting, processing and analysing data, as well as the ability to interpret and apply the results in a meaningful way in the business context. In short, data-driven decisions are critical to improving efficiency and competitiveness across a wide range of industries.

How to make data-driven decisions

1. Data-Driven Culture
2. Technology Infrastructure
3. Data Collection and Storage
4. Data Analytics
5. Data Visualisation
6. Collaborative Decision Making
7. Establishing Key Performance Indicators (KPIs):
8. Training and Development
9. Emphasis on Data Security and Privacy
10. Evaluation and Continuous Learning

Keys of asking the right questions

- Guiding questions
- Key tasks
- Six types of problems
- SMART questions
- Identifying stakeholders and scoping work

Guiding questions to help frame

- What topic are you exploring? Clearly define the subject matter to set the scope of your project.
- What problem are you trying to solve? Identify the core issue you aim to address with your analysis.
- What metrics will you use to measure your data and achieve your goal? Determine the key performance indicators to track progress.
- Who are the stakeholders? Consider the individuals and teams who will be affected by or interested in your analysis.
- Who is your audience for this analysis? Understand how your target audience affects your analysis and presentation process.
- How will this data help stakeholders make decisions? Ensure your findings will provide actionable insights for decision-makers.

Key Tasks

- Choose a case study
- Identify the problem
- Determine key stakeholders
- Explore data and establish metrics

Six Types of Problems in Analytics

- Making Predictions
- Categorizing Things
- Detecting Something Unusual
- Identifying Themes
- Discovering Connections
- Finding Patterns

SMART Questions

- Specific: Clearly define the issue.
- Measurable: Quantify the problem or goal.
- Action-oriented: Focus on steps to resolve the issue.
- Relevant: Relate to the project’s overall objectives.
- Time-bound: Set a timeline for achieving the goal.

Things to avoid when asking questions

- Leading questions: Avoid biasing the respondent’s answer.
- Closed questions: Allow room for open-ended responses.
- Vague questions: Clearly state what you want to know.

How to Ask the Right Analytics Questions

How to Ask the Right Analytics Questions

Bad: **How many people read my blog?**

- This question has no objective, isn't based on revenue, lacks timeframe
- Does have a metric

Better: **What is the average number of people that read my blog?**

- The question has a solid metric
- Depth and definition are missing

How to Ask the Right Analytics Questions

How to Ask the Right Analytics Questions

- I want to find out what our users like and dislike about our product, so I market and communicate things that users don't know and overcome objections.
- How can we optimize our product's feature X for long-term retention?
- During the first 14 days of a new signup's lifetime, what are the actions that they do in their first 24 hours that correlate to their purchasing?
- Do users who connect a website account in the first 30 days purchase more frequently?

4 Essential Principles for Asking Questions

1. **Think about the Journey, Not about Isolated Touchpoints**
2. **Incorporate Business Context**
3. **Avoid Vague and Open-ended Questions**
4. **Ask Specific Questions that Include Revenue-based Objectives, Timeframes, Segments, Metrics, and Dimensions**

4 Essential Principles for Asking Questions in Analytics

#3: Avoid Vague and Open-ended Questions

Vague questions get you vague answers. Open-ended questions only lead to more questions. Avoid the following:

Q: **“How many visitors did I get?”**

A: Probably a lot, maybe.

4 Essential Principles for Asking Questions in Analytics

#4: Ask Specific Questions that Include Revenue-based Objectives, Timeframes, Segments, Metrics, and Dimensions

Bad: **"How many sales did we make?"**

- No objective, not based on revenue, no timeframe, but has a metric.

Better: **"What is the average revenue per unit?"**

- Has a solid metric but depth and definition are missing

4 Essential Principles for Asking Questions in Analytics

4 Essential Principles for Asking Questions in Analytics

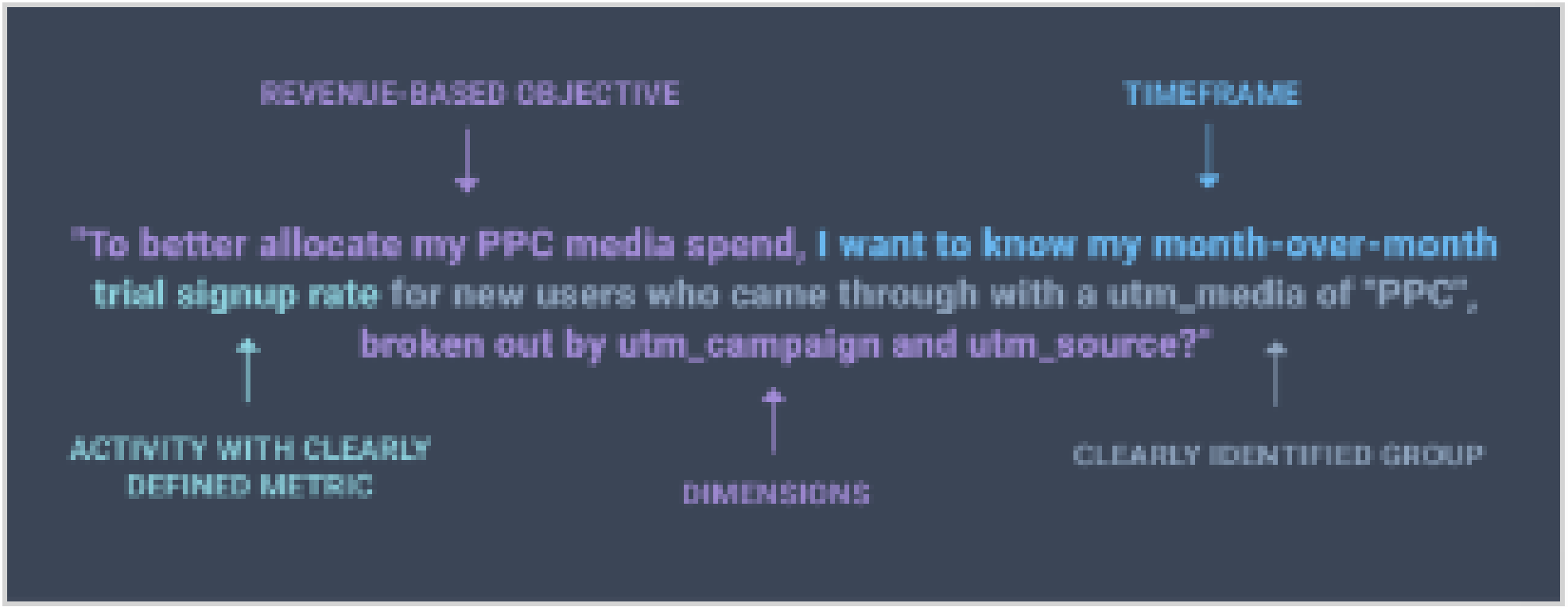
Bad: **“How many visitors did I get?”**

- No objective, not based on revenue, no timeframe
- At least it has a metric

Better: **“What is my conversion rate on my paid media channels?”**

- Depth and definition are missing
- Has a solid metric and a semi-defined target group

4 Essential Principles for Asking Questions in Analytics



4 Essential Principles for Asking Questions in Analytics

Real-Life Questions from Two Product Companies that Grew Thanks to Asking the Right Questions

Exploratory or open-ended questions have a purpose if you ask them when you're setting your strategy, before you dive into data in the analytics tool. We invite you to start strategizing with questions such as:

4 Essential Principles for Asking Questions in Analytics

- How can we optimize our product for long term retention?
- How can we improve our reporting and analytics strategies by asking the right questions?
- How can we evaluate if our marketing budget is yielding the right return on Investment from the amount of users that sign up and use our product in each quarter?
- How can we improve our product to adhere with the world's best practices and become the number 1 product in the market by Q3?
- How can we track the number of users that visited our website and purchased our product at least twice within the first quarter of this year?
- How can we improve the user interface of our product to retain more users and boost sales by 70% in Q2?
- How can we optimize our product for long-term retention?

Benefits of Asking Questions like a Data Analyst

- Saving time and money by cutting out questions that would not yield results
- Getting the team on the same page by setting clear objectives
- Accelerating growth by uncovering real issues and by discovering growth opportunities
- Building a data-driven culture by always evaluating how insights will be acted on

References:

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