

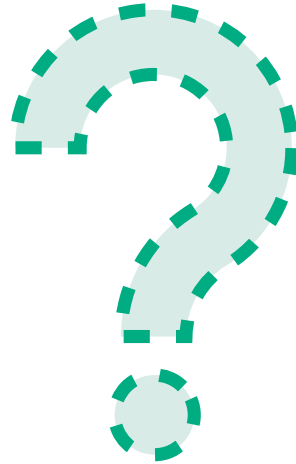


Data Literacy

Are you Ground or Air Crew?

Data Literacy

- Is it data?
- Is it knowledge?
- Is it technology?
- Is it functional?



What do you think?



What do you think data literacy is?

21 responses





Reitse Eskens

Axians Business Analytics
Groningen
DBA, Data Engineer



Valerie Junk

PorcuBI
Utrecht
Data Analytics & Visualization



Where to start?

- Are you using data to tell a story?
- Are you telling a story using data?

Data



Sorted



Arranged



Presented
Visually



Explained
with a story



Actionable
and useful



What is your starting point



Engineering

0

Visualisation

0

I'm here for the stroopwafels ;)





Let's break it down

- The definition.
- Why is it important?
- No one size fits all.
- The framework.
- Dream big, start small!



The Definition

Gartner:

“...the ability to read, write and communicate data in context, including an understanding of data sources and constructs, analytical methods and techniques applied — and the ability to describe the use case, application, and resulting value.”

The ability to **read**, **write** and **communicate** data in context



Read



Write



Communicate

..including understanding of **data sources and constructs**, analytical **methods** and **techniques** applied ...



Data Sources &
Constructs



Methods &
Techniques

..and the ability to **describe** the **use case**,
application, and resulting **value**.



Use Case



Application



Added value

Importance of data literacy

Companies realize they can achieve more with data

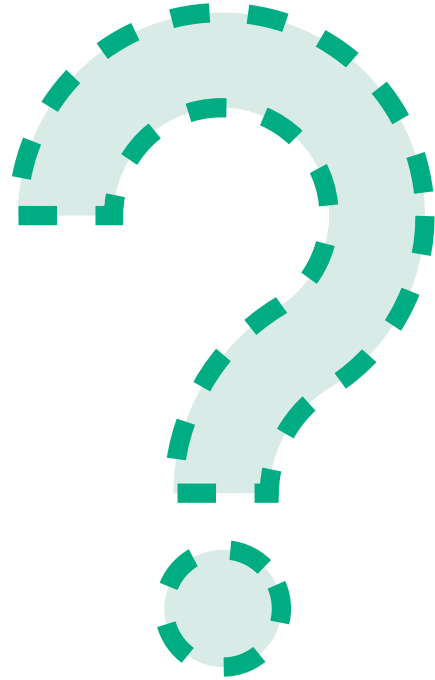
- More advanced tools
- Increase in “modern” workforce (less gut feeling)

But:

- Data initiatives lead to less real change
- Risk of ‘anarchie’
- Employees lack the enthusiasm to change the way of working



**How can
we make
this work?**



How do you make data literacy work?

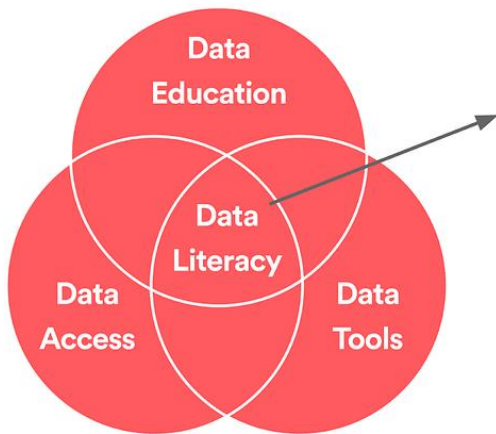


transpiration
bold inspiration
creative
fast
leader
focus



An example: Airbnb

Data education is the key to raising the bar of data literacy at Airbnb



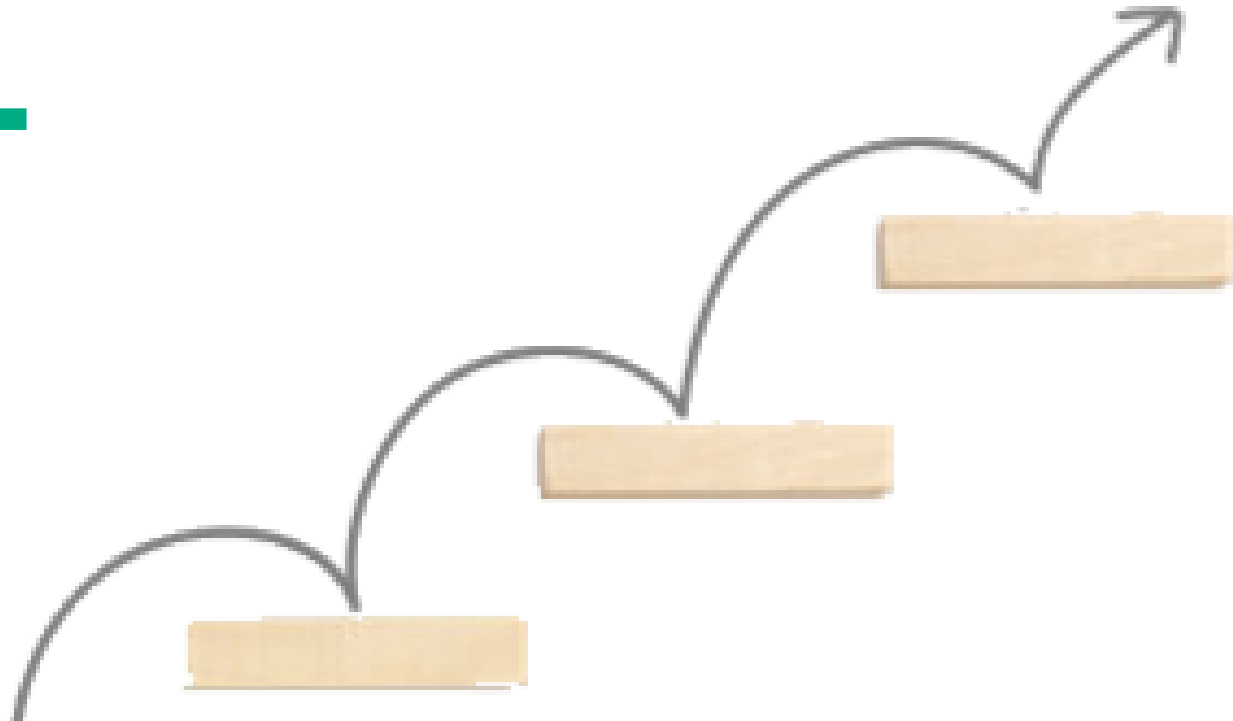
- **Inform decisions** - Ensure decisions are grounded in data
- **Sharper context** - Users asking the questions know what he/she is
- **Self-service** - Reduce feedback loop in answering questions



Customization is key

- Content needs to be specific and customized to the needs of your company, your employees, and their work.
- Use your own data, tools, and use cases/problems.
- What you learn is what you need! What you learn is part of your work - real problems and answering real questions.
- Measure success (dashboards, user access..)

Skilling – 3 Levels



Level 1 – Consuming Data

- Consuming data.
- Working with data is not a daily task.
- Manager thinks data is important but does not take actions (currently) based on data.

Level 1 – Consuming Data

- Put the data goggles on!
- How to interpret visuals and use a dashboard?
- How can I tell a story/convince using this data?
- How does this data add value?
- Ethics and privacy.

Level 1 -

- Put the data g
- How to interp
- How can I tell
- How does this
- Ethics and priv

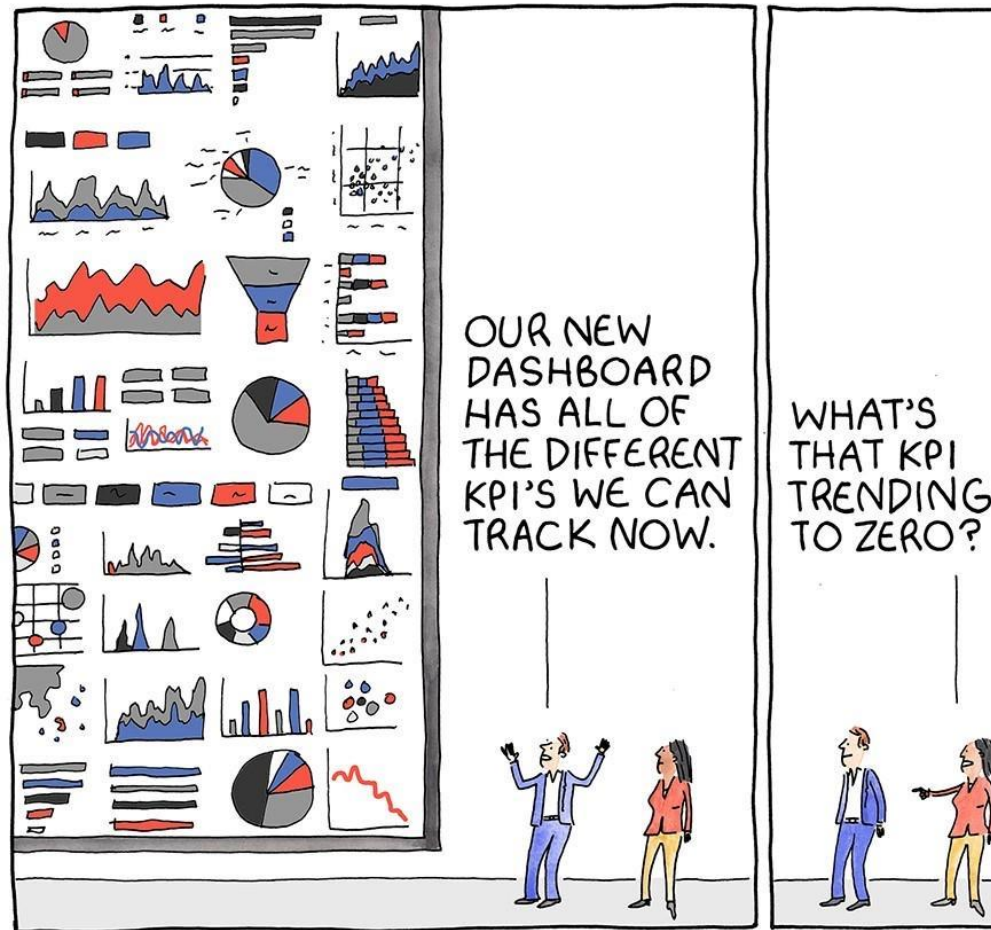


Level 2 – Using Data

- Working with data.
- Employees who want to create their own dashboards.
- Combining and analyzing data.

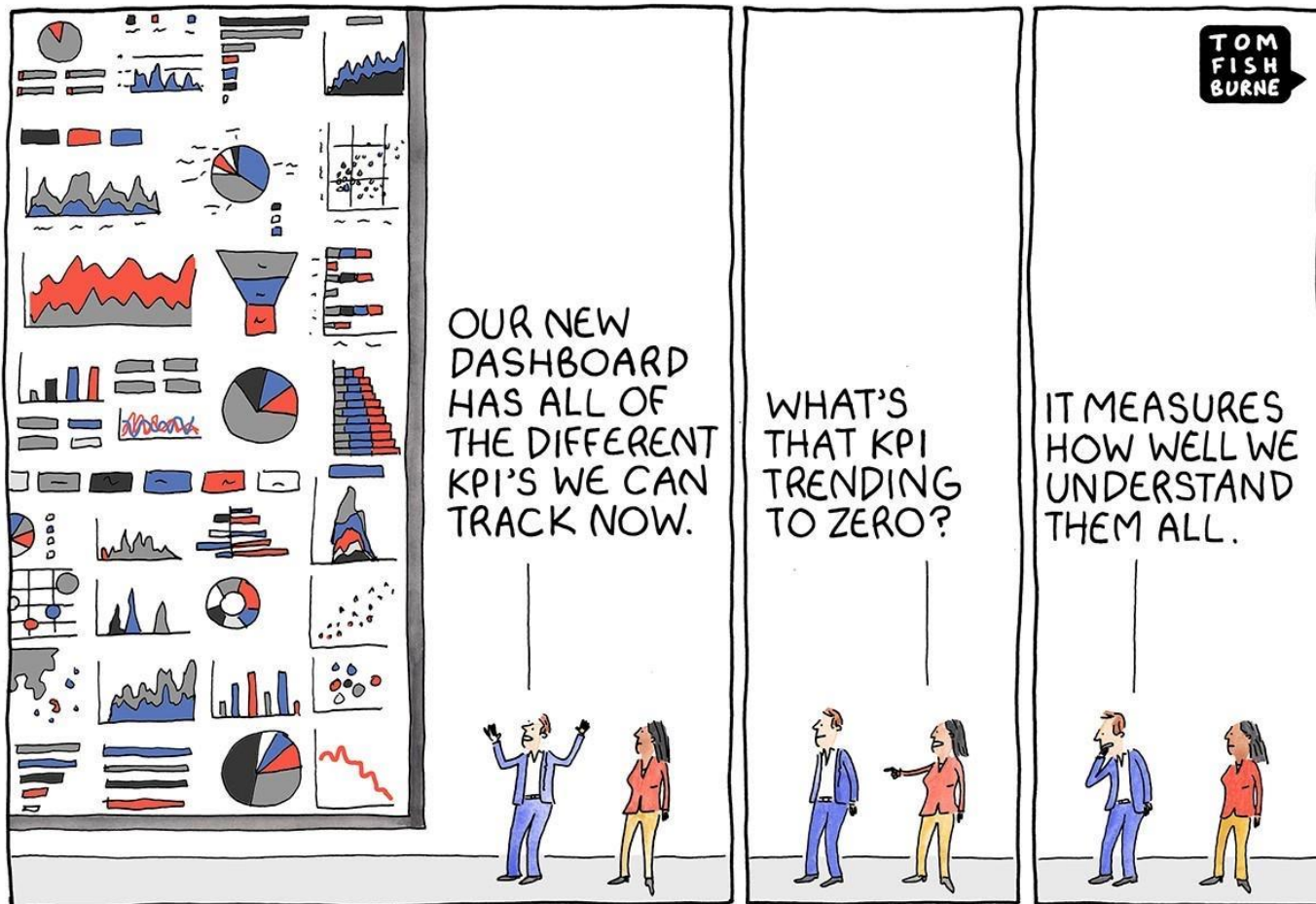
Level 2 – Using

- Training in specific tools like Power BI, Tableau
- Combining data sources
- Dashboard Design Basics
- SQL
- Performance
- Basic Statistics
- Looking critically at data



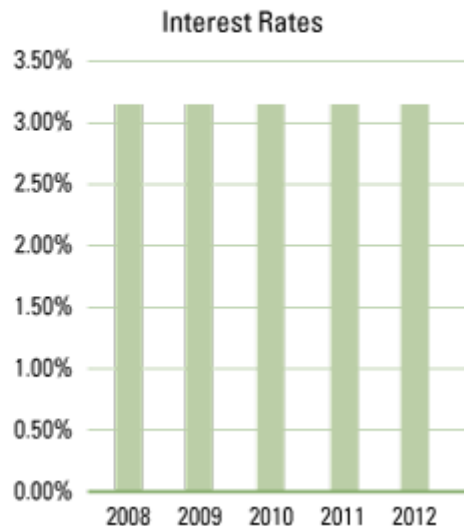
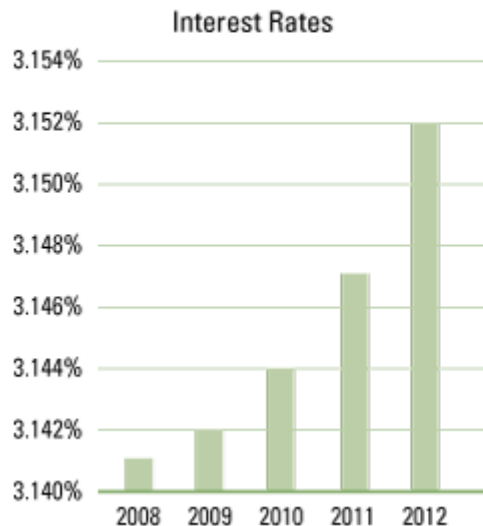
Level

- Training in sp
- Combining d
- Dashboard D
- SQL
- Performance
- Basic Statistic
- Looking critic



Data presentation

Same Data, Different Y-Axis



Level 3 – Data Scientist & Programmers

- Employees who want to start making their own predictions based on data.
- Understand the availability and possibility of different available techniques.

Level 3 – Data Scientist & Programmers

- Which technique is best to use for which problem?
- Implementation of data science models
- Machine learning
- R, python, Alteryx
- Time series analysis and prediction
- Advanced statistics

Knowledge & Skills

- Functional (what data do I have)
- Technical (how do I get it out)
- Presentation (how do I tell the story)

Synergy!

Where is your organisation?



Data Consumers

0

Data Users

0

Data Scientists

Starting point:

Architecture Design Session

- Define what end users wants and needs.
- Define the data sources, current data platform(s) and pain points.
- Define knowledge level inside the organisation.

All good and well, but

- ... If my employees want everything with data, it increases the pressure on the BI department. They are overwhelmed as it is right now!
- ... can my data platform handle all the extra users?

The magical 2nd step



Think big – Start small

- With 1 department, for instance HR
- With 1 domain where the data is verified, for instance salaries
- With 1 layer, for instance management
- With 1 skill, for instance story telling
- With 1 level, for instance data scientists

Key takeaway

Working data-driven:

- Data Literacy = part of the data strategy!
- Change needs time!
- Training is a must and not a “nice to have”.
- Responsibility is key.
- Track progress, celebrate successes, and show interest.

What is your biggest take away?

0 responses



Contact



Reitse Eskens
reitse.eskens@axians.com



Valerie Junk
valerie@porcubi.nl

Feedback Please!!

