



Data Literacy

Are you Ground or Air Crew?

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DATA SATURDAY OSLO
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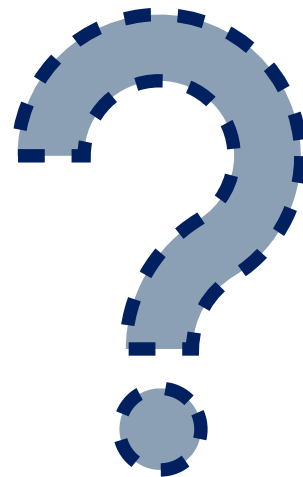


Cloudberries



Data Literacy

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



What do you think?



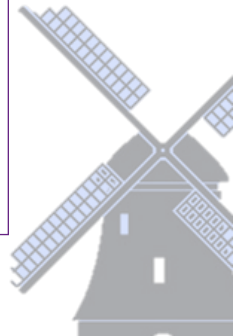
Reitse Eskens

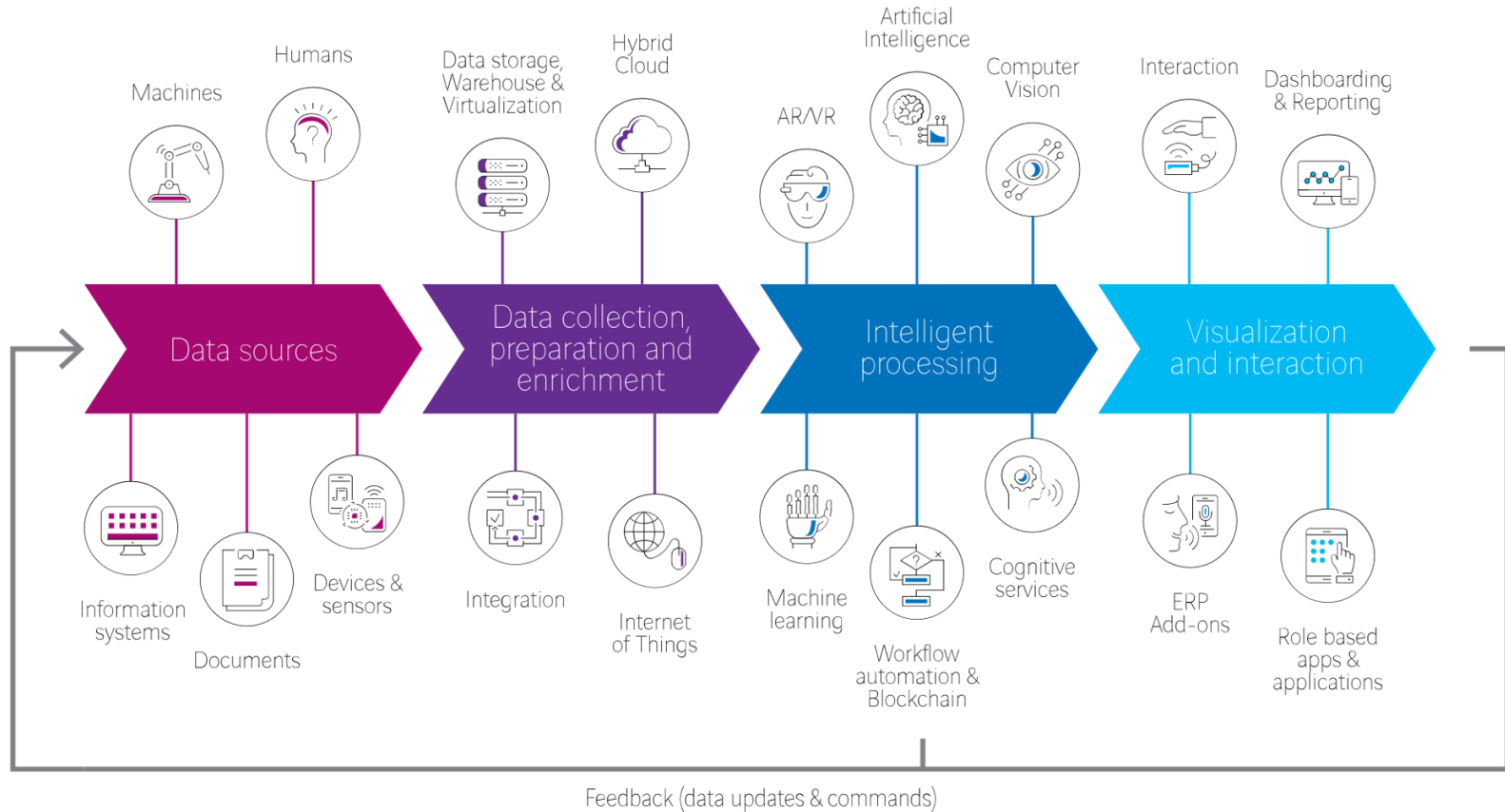
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Where to start?

- ▶ 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



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

Supported by:

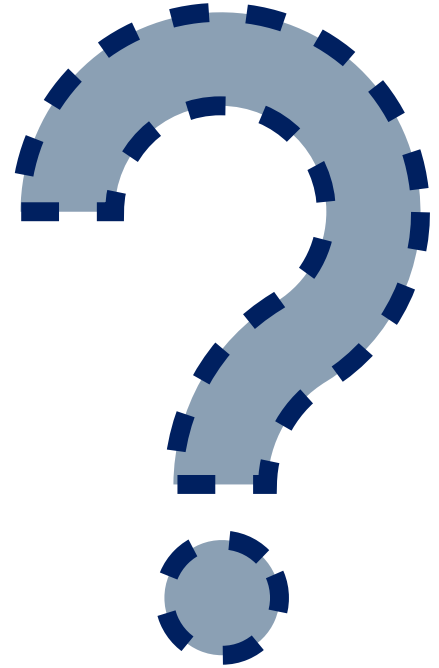
- ▶ More advanced tools
- ▶ Increase in “modern” workforce (less gut feeling)

But:

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

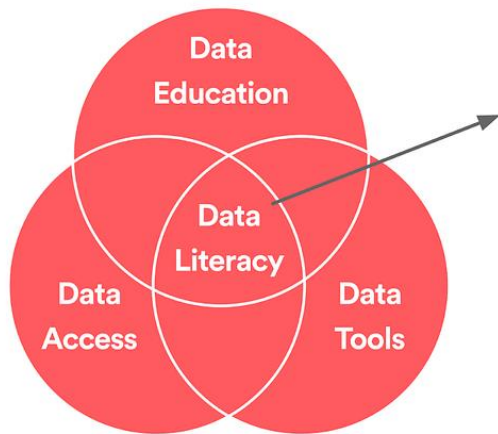


**How can we
make this
work?**



An example: Airbnb

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

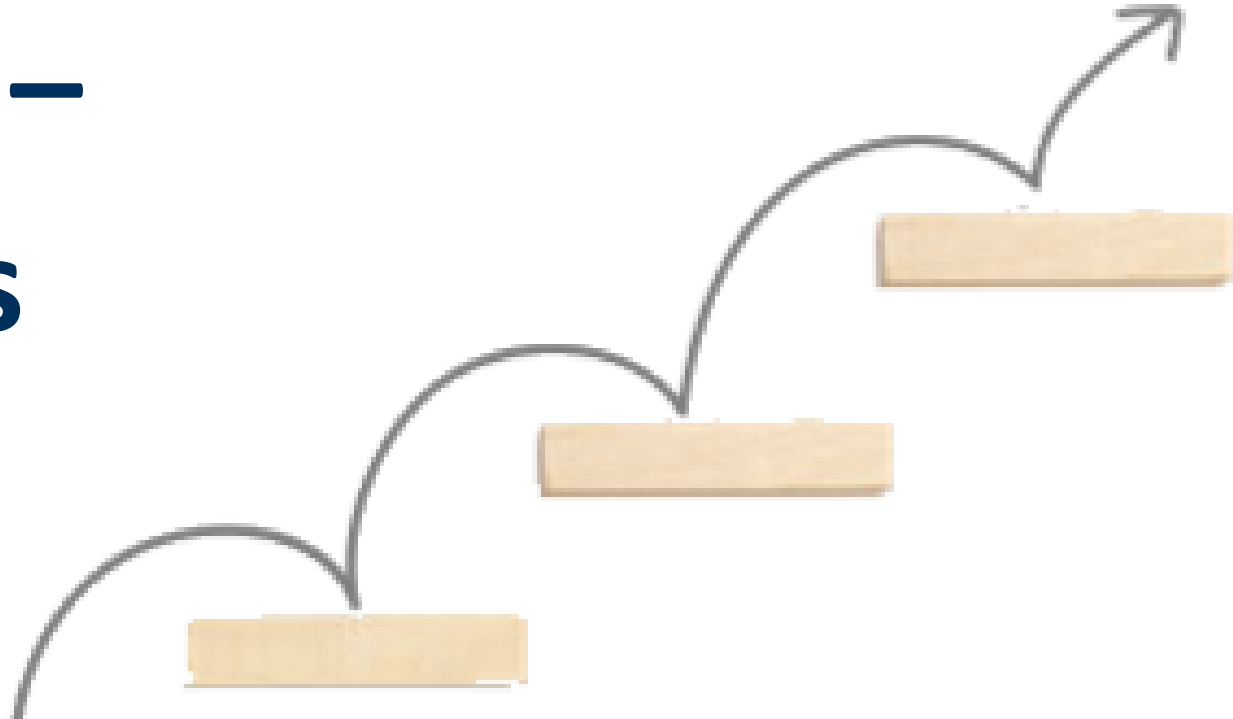


- **Inform decisions** - Ensure decisions are grounded in data
- **Sharper context** - Users asking the questions
- **Self-service** - Reduce feedback loop in answering questions

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.

Correlation vs causality. h/t Doug

► Put the

► How to

► How can

► How do

► Ethics a

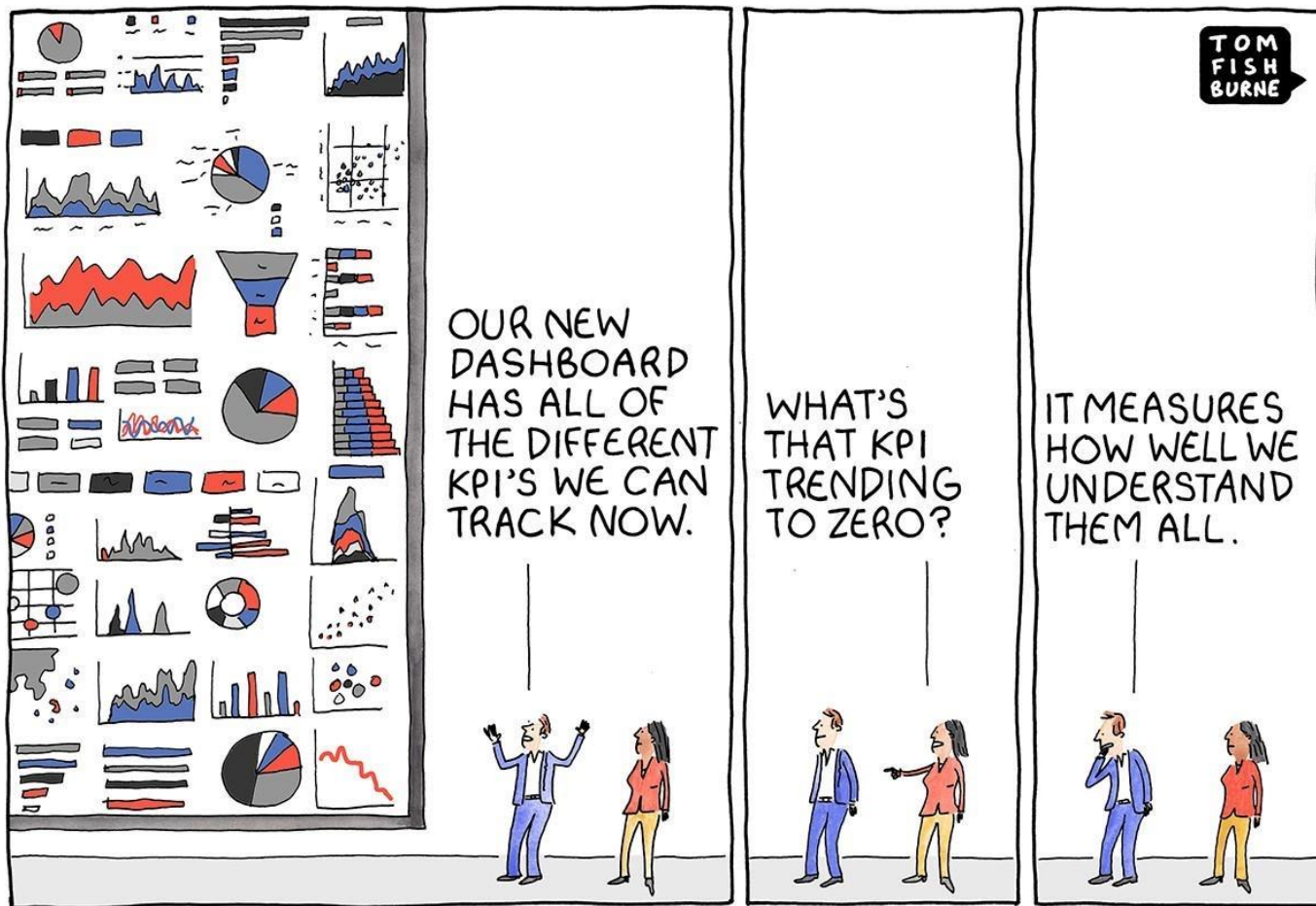


onboard?

his data?

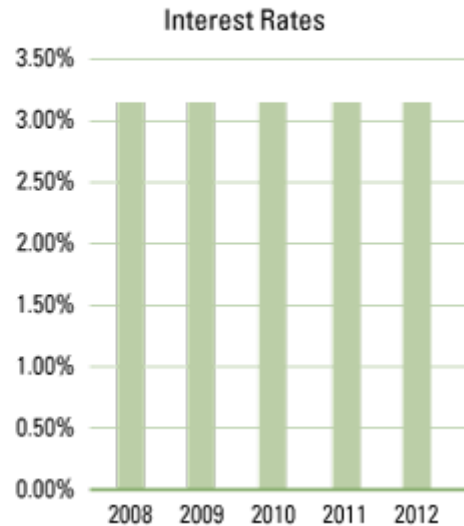
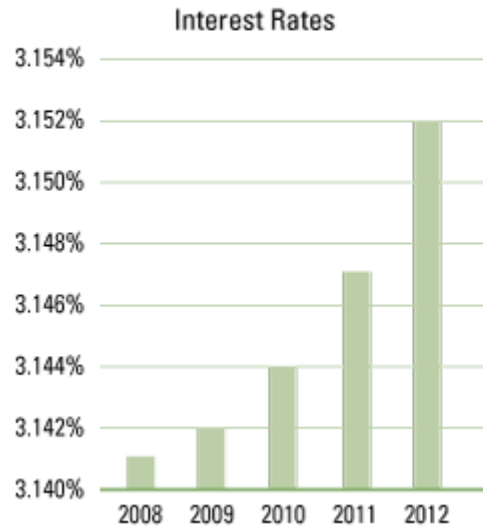
Level 2 – Using Data

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



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.

- ▶ 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 and Skills

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



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 but 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.

Contact



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