Learning to learn

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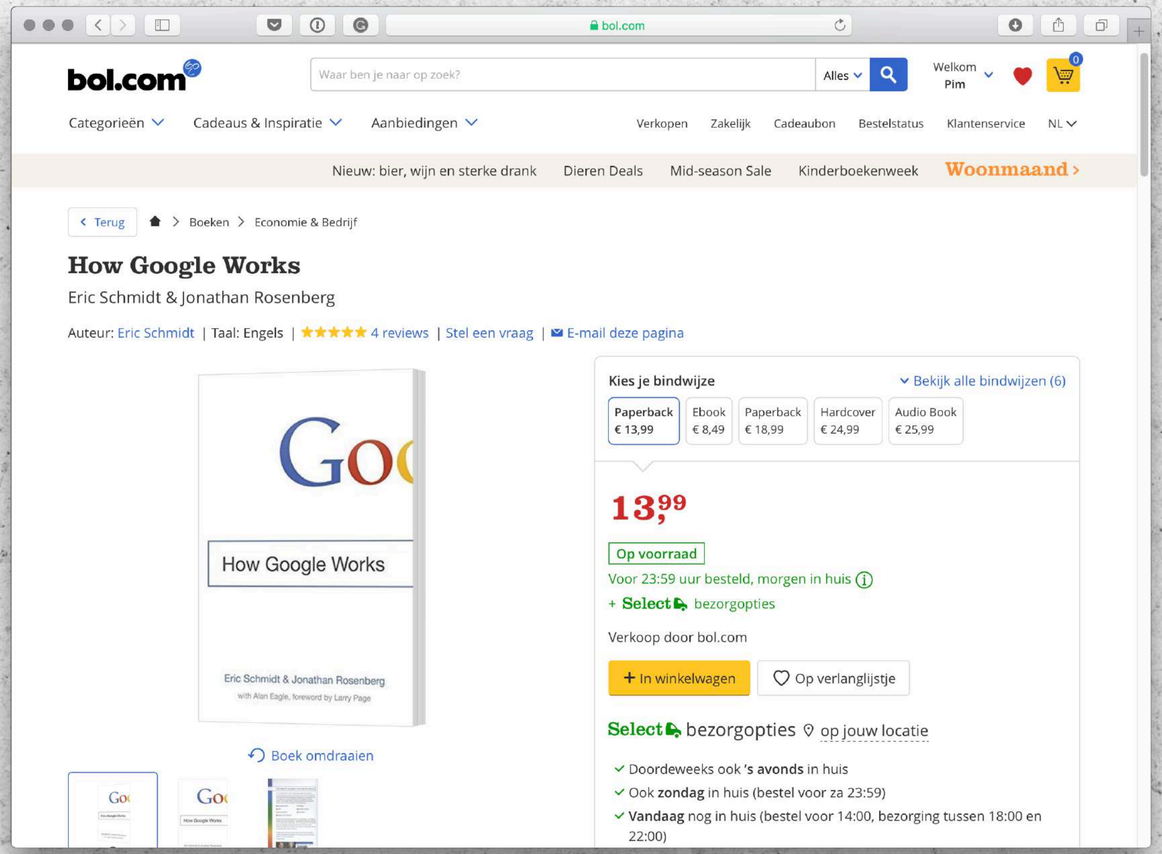
Ahold Delhaize



1999

Online retail

Retail + platform (16k)

€1.6bn (2017)

41 stores

1400 employees

Pim Nauts

Lead Data Science

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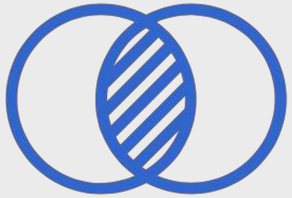
Data Science, organised around 4 domains (2017)



Relevance

Smart advertising
Recommendations
Data platform
Experimentation

Best Offer

Search & content

Forecasting

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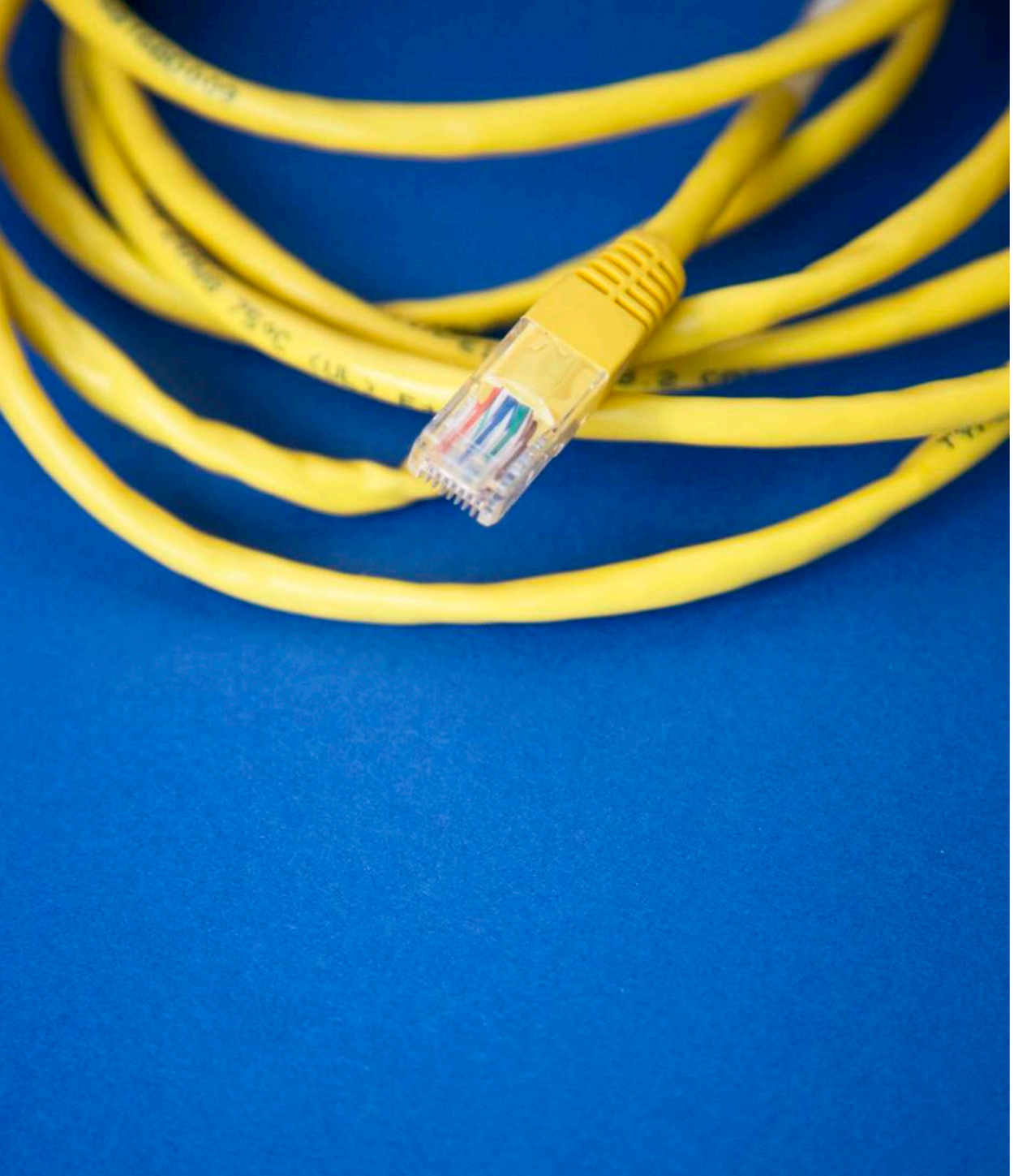
We use data, about everywhere

(Traffic • Conversion • Order value) – returns



A definition

Use data you have (seen)

to

Generate data you haven't (seen)

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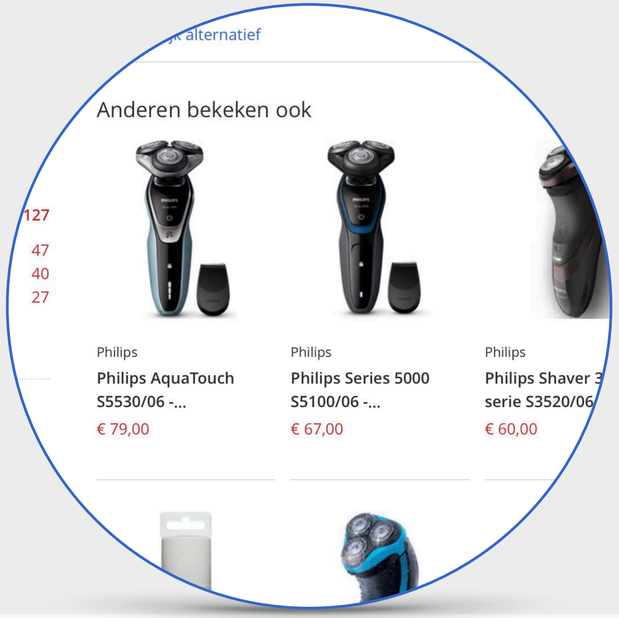
Data for CX: recommendations



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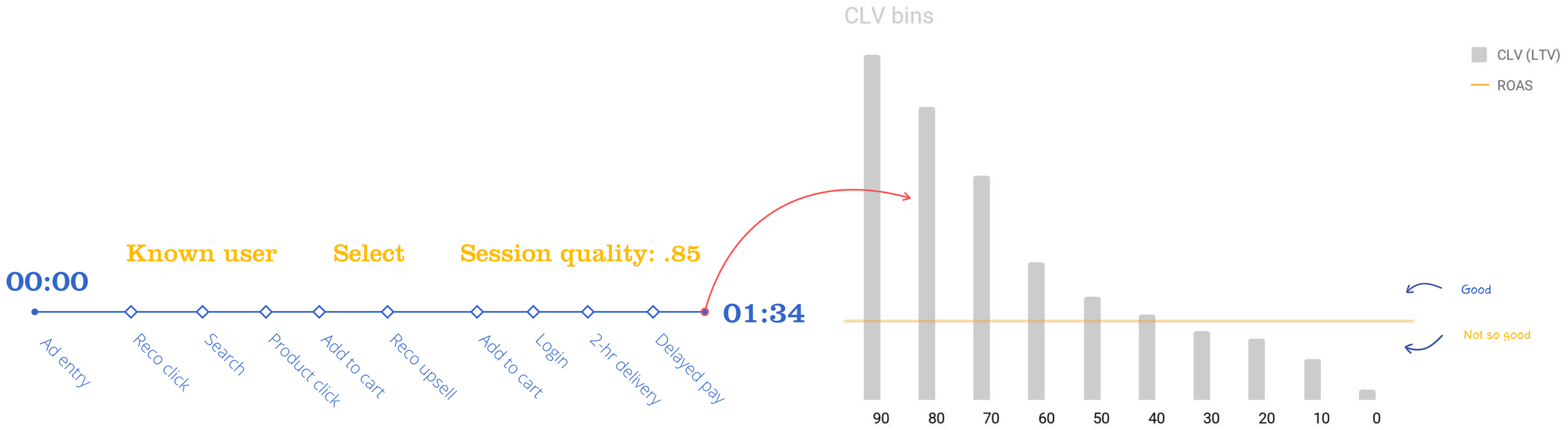
Predicting lifetime value to optimise audiences and ROAS.



Google

The Audience Machine

high and low value audiences available in Google Ads via API on a daily basis

1. Assign high and low value labels to bol.com customer ID's based on RFM model

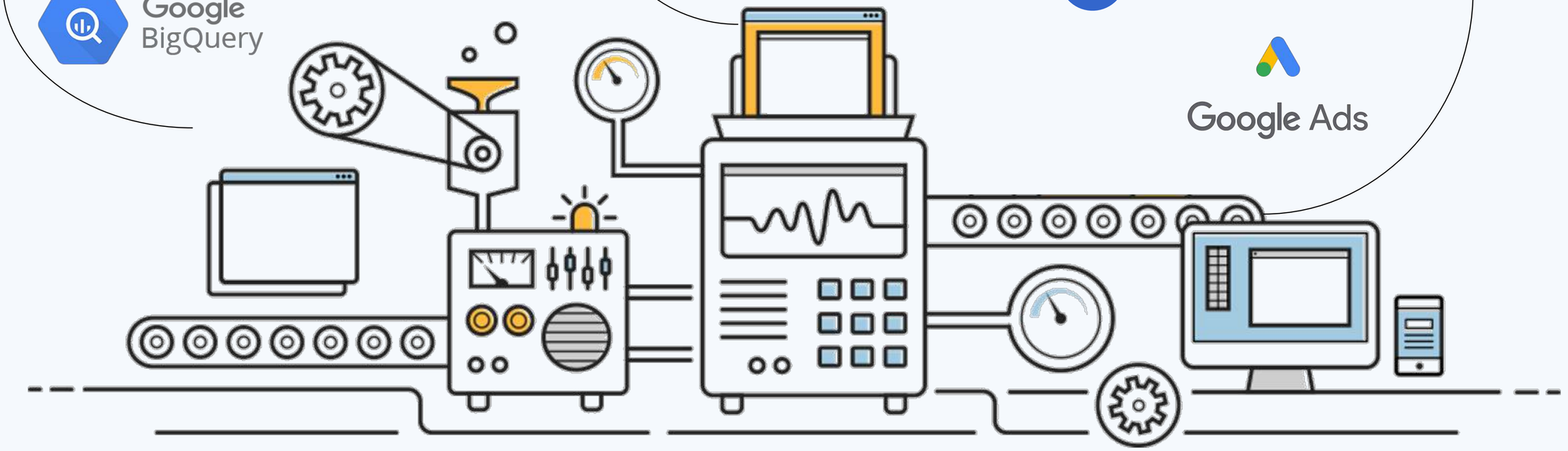
Google BigQuery

2. Send audiences to Google Analytics 360 via daily API connection

Google Analytics

3. Via Google Analytics, audiences are available for Search (Google Ads)

Google Ads



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My 3 main points

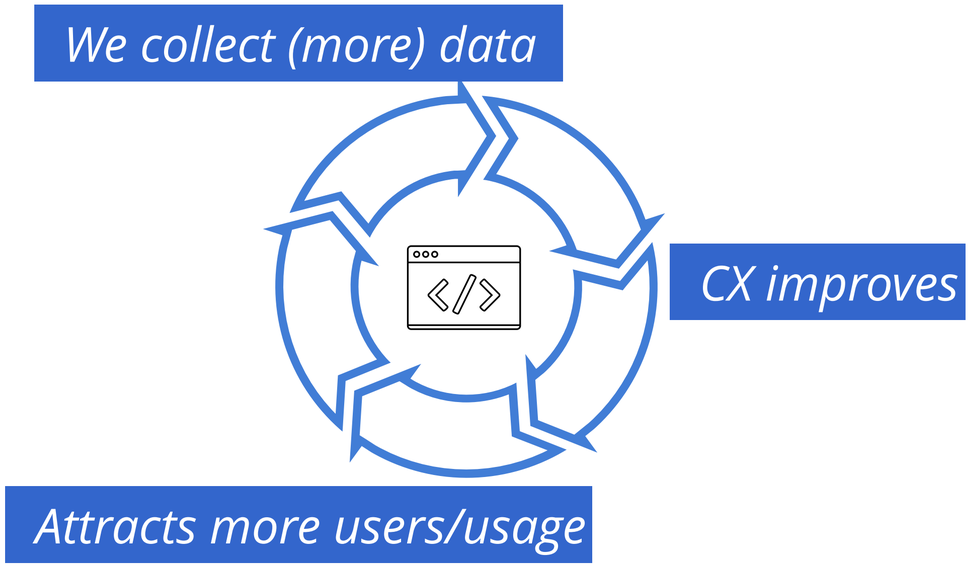
Data is NOT the new oil

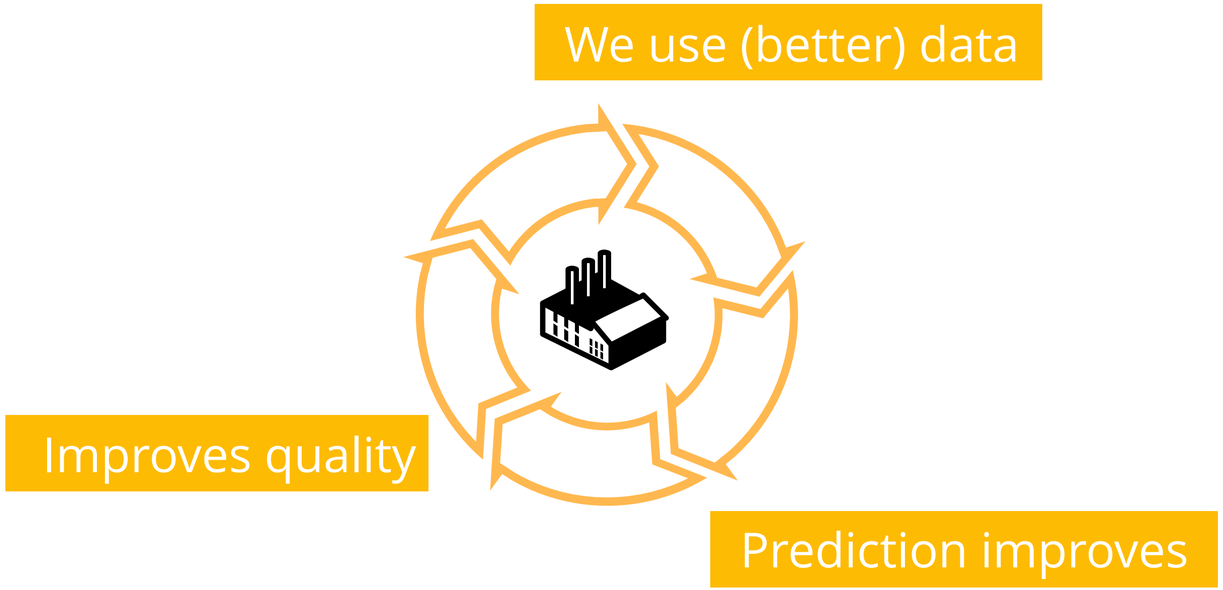
Learn to learn

Optimise for learning

“Data is the new oil”

Why (our) data is valuable: two flywheels

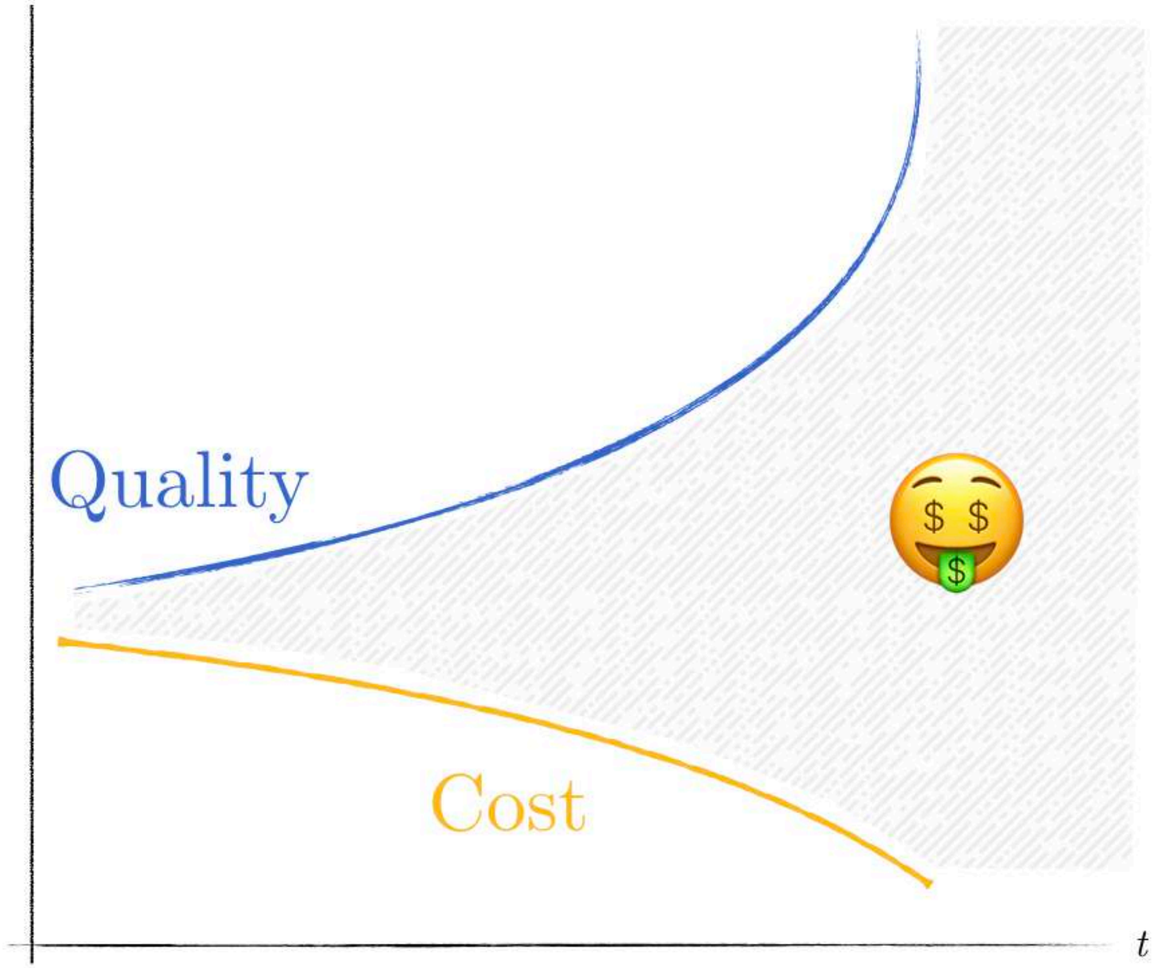




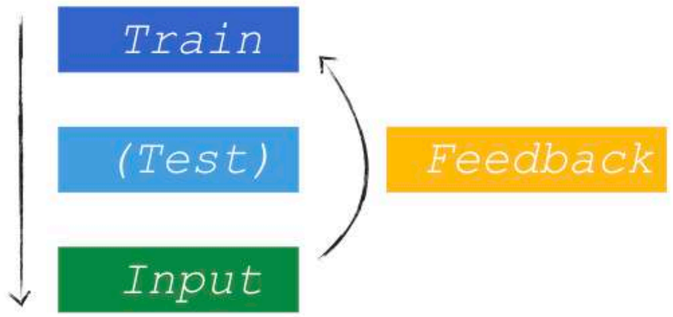
Front-end

Back-end

A law of increasing returns



Data's changing data.



Market offerings lack the purity we want (need?)

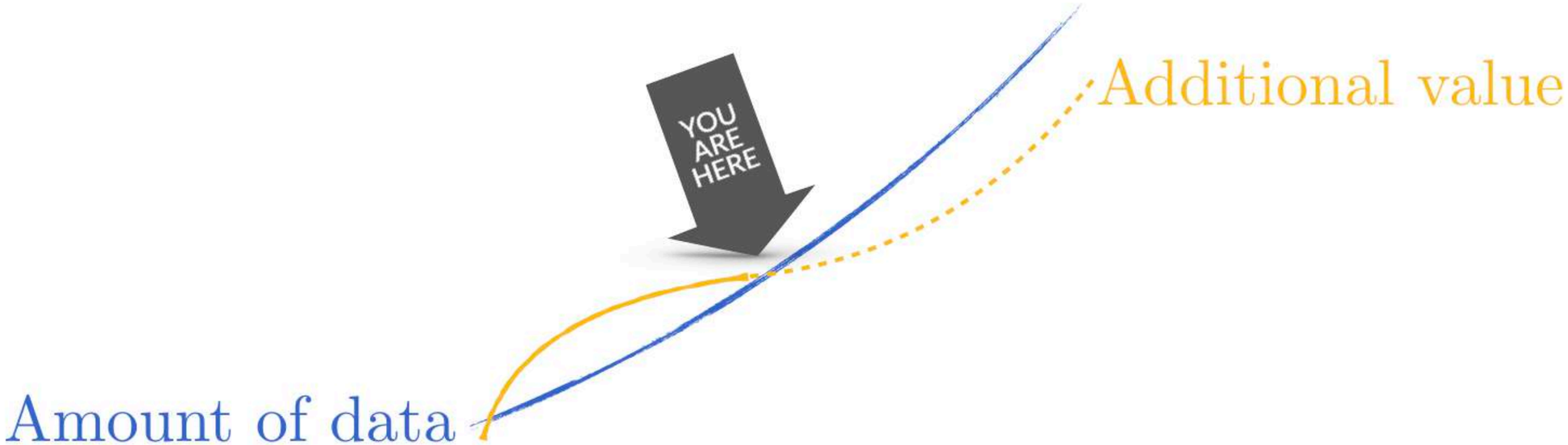
	Hit	Content	Interaction	Real-time	Ownership	Integration	Cost
Vendors	✓	✗	✓	✗	✗	😐	🤬
Own - logs	✓	✗	✗	✓	✓	😎	✓

And so we built our own

	Hit	Content	Interaction	Real-time	Ownership	Integration	Cost
Vendors	✓	✗	✓	✗	✗	🤨	🤬
"M2"	🤩	🤩	🤩	🤩	🤩	🤓	🤐
Own - logs	✓	✗	✗	✓	✓	😎	✓

Where to start?

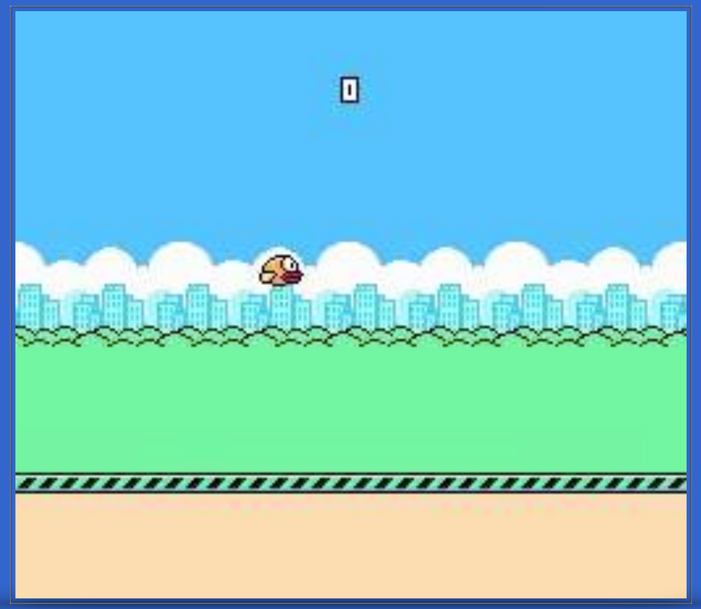
When it pays to invest in methods (yourself)



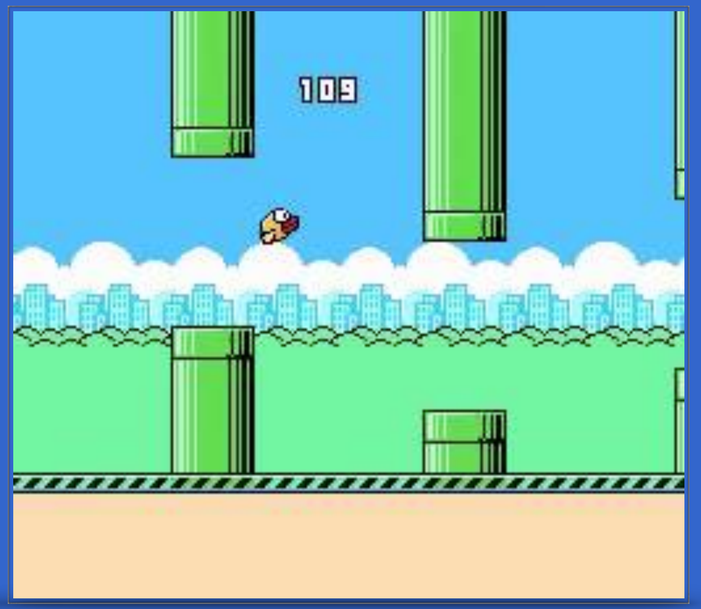
Learning to learn

Initially

05:00



60:00



Predicting product categories

CHUNK norris

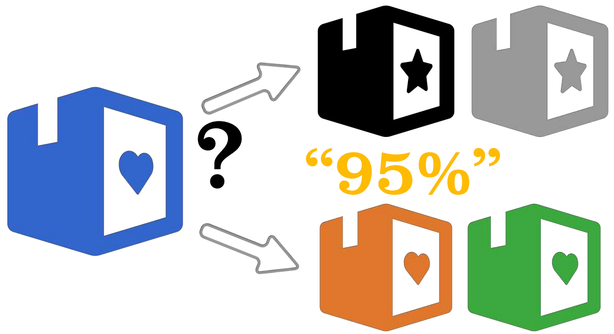
Does Evolved Bliss - Roze - Vibrator belong on CD's?

Product

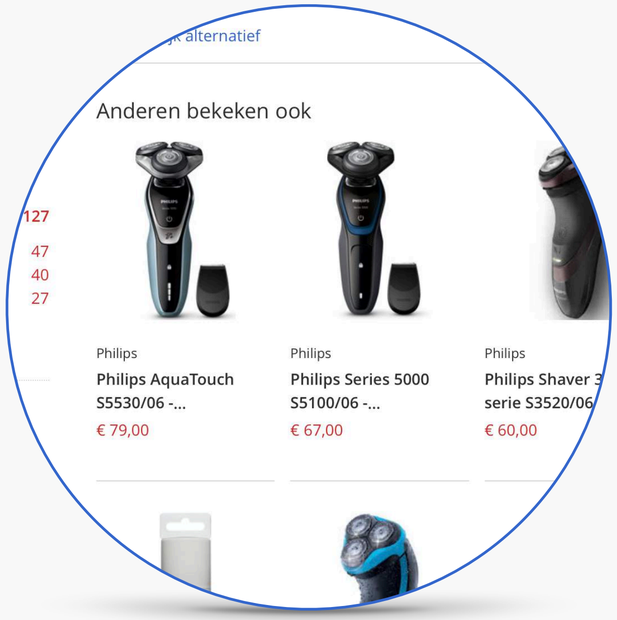
Global ID	9200000029871014
Predicted chunk	CD's
Current chunk	Vibrators
Content or Image	Flag for review
Link	Check

Good, or good enough?

Properly understand real-world metrics



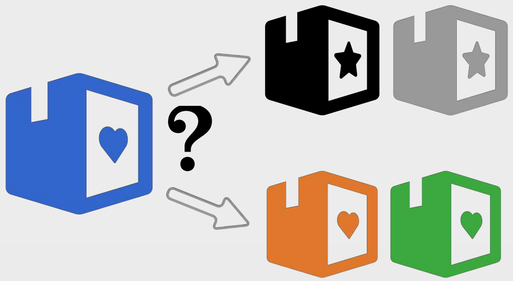
VS

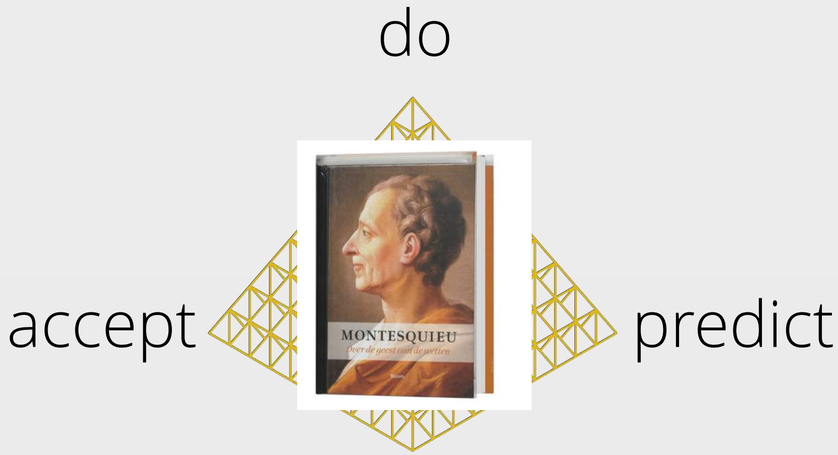


Catalogue

Recommendations

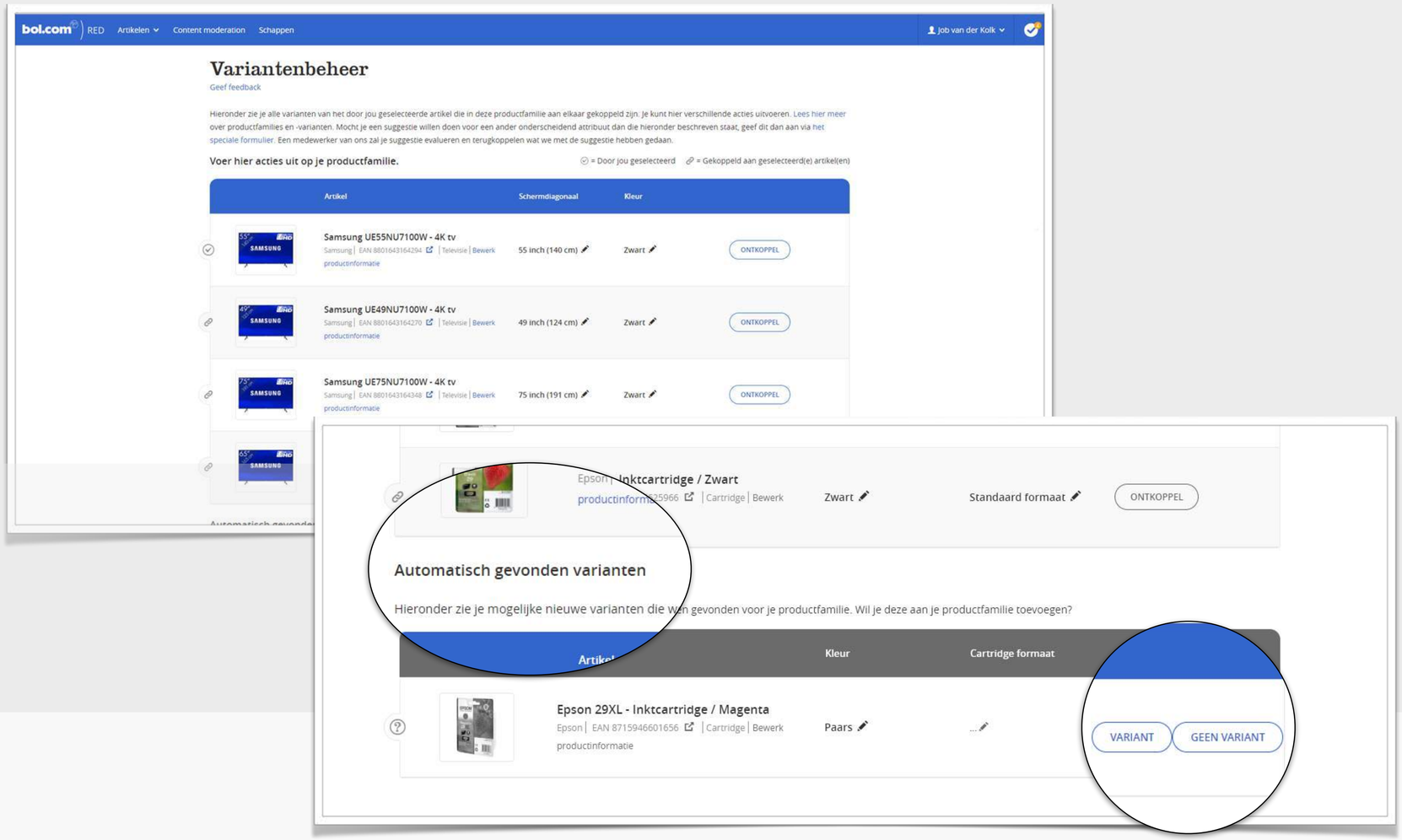
Implementing ~~AI~~ ML == organizational change

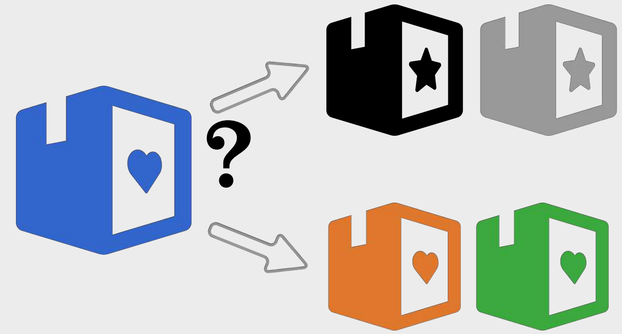




Start where the feedback is

Because feedback = learning





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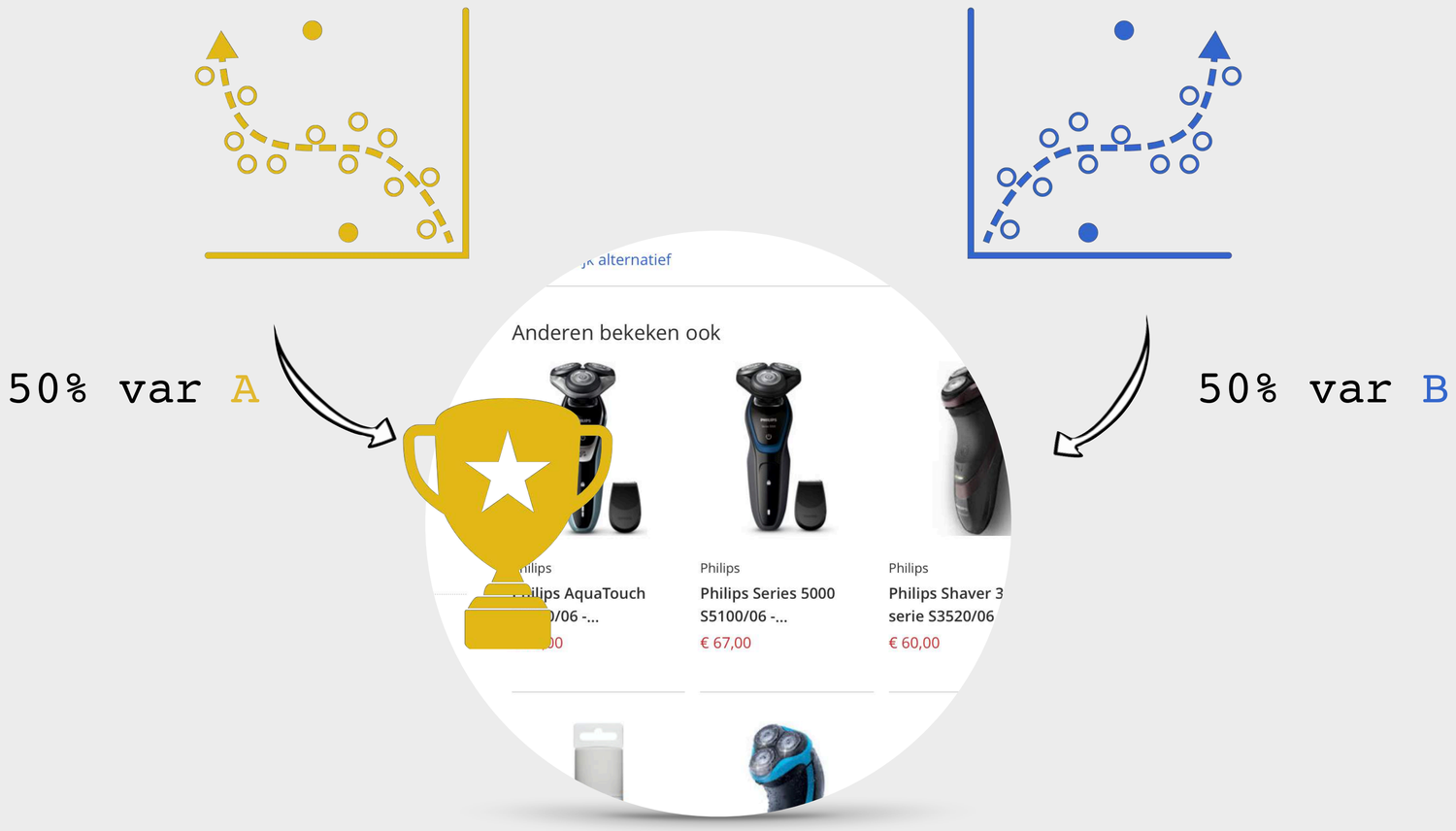
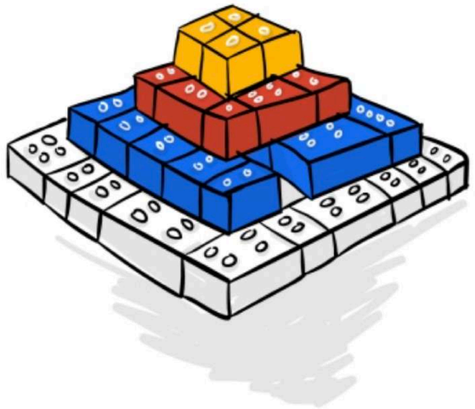
Optimise for learning.

Most feedback + highest tolerance for error



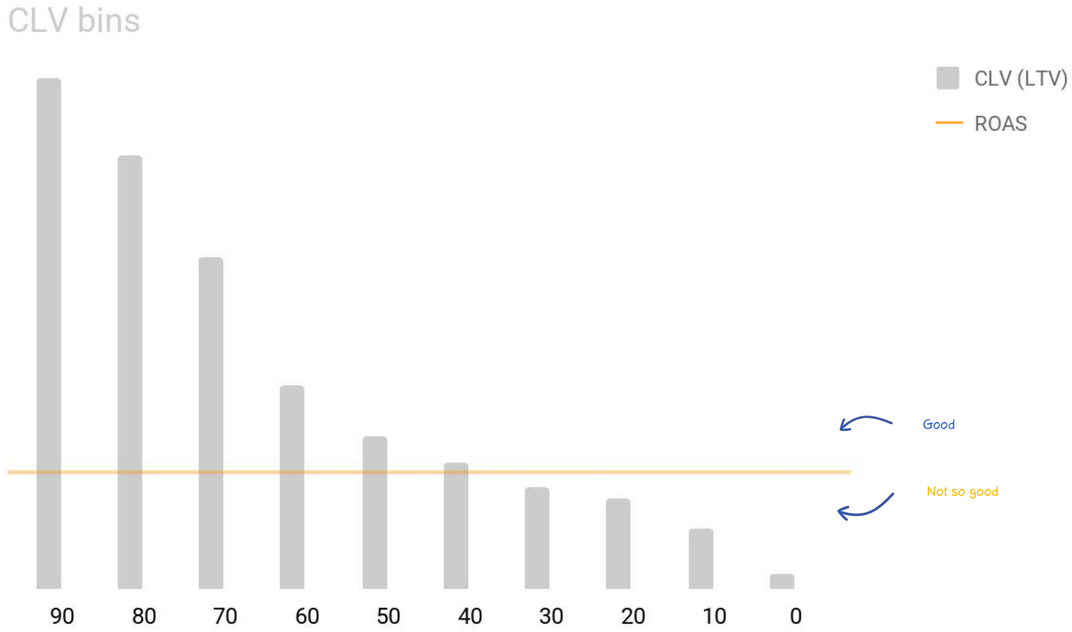
Drive the car, don't design the route

Don't base your venture on a plan.
Instead base it on a strategic foundation.



You can have a plan,
but know that it will change,
probably a lot.

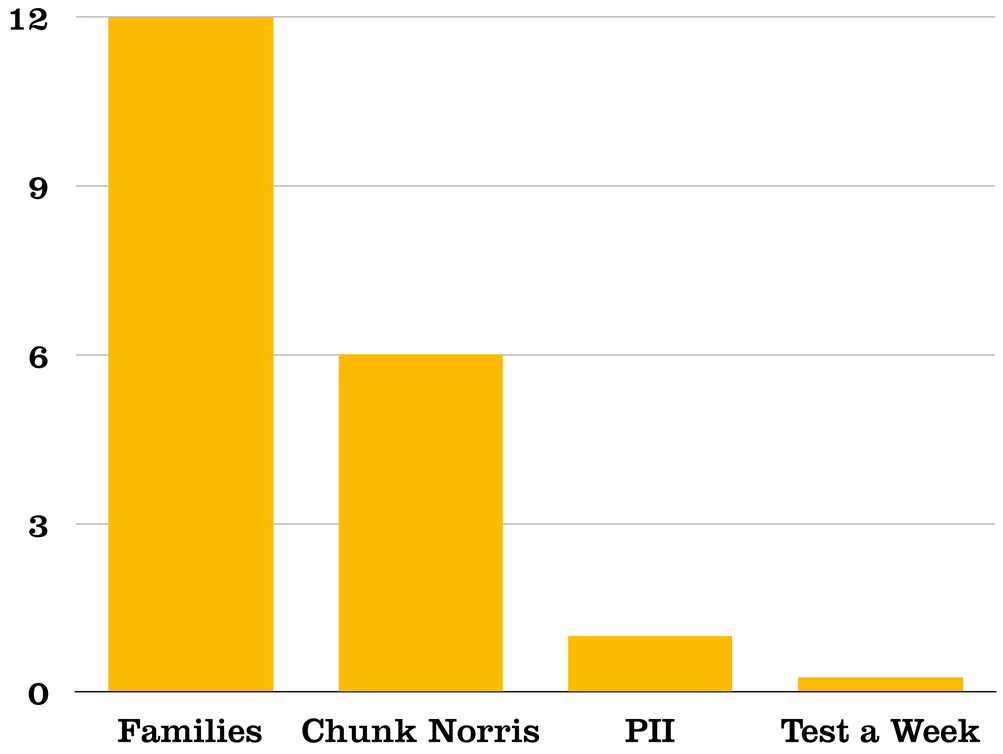
The plan is *fluid*,
the foundation *stable*.

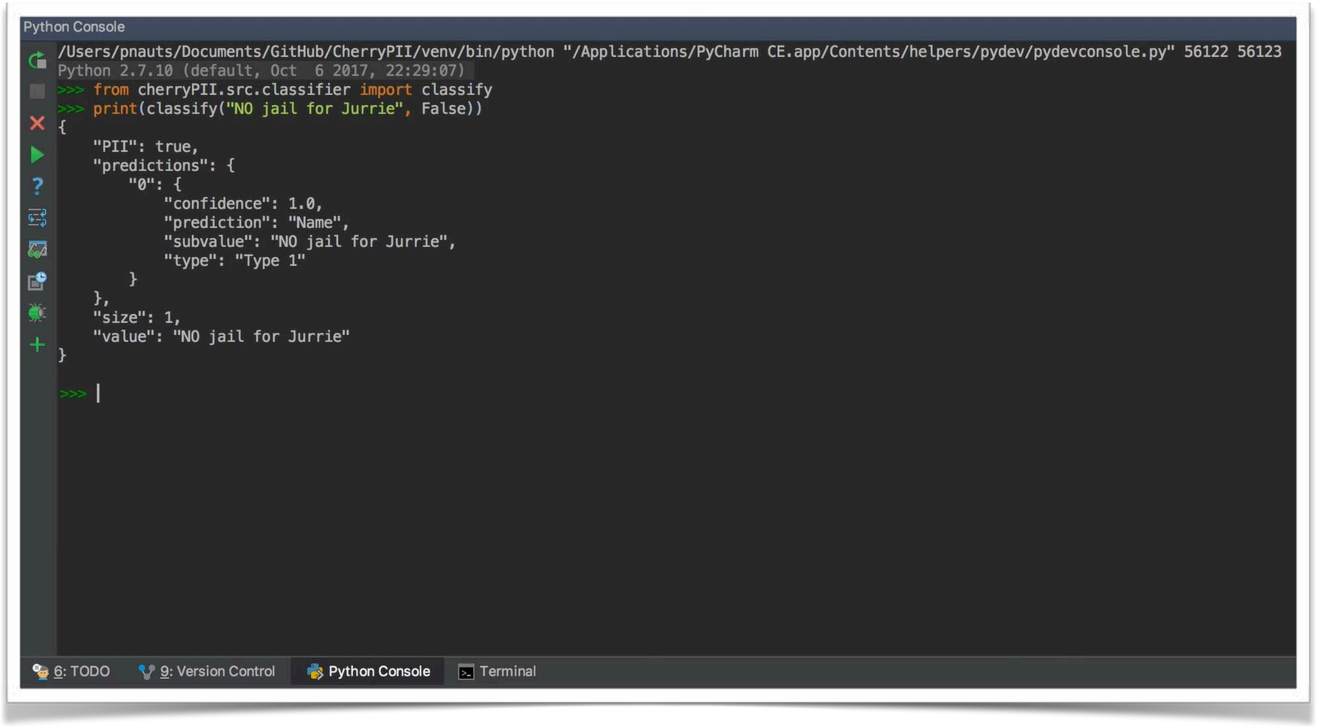


Optimise (and organise) for learning

As learning compounds *fast*

Time to value

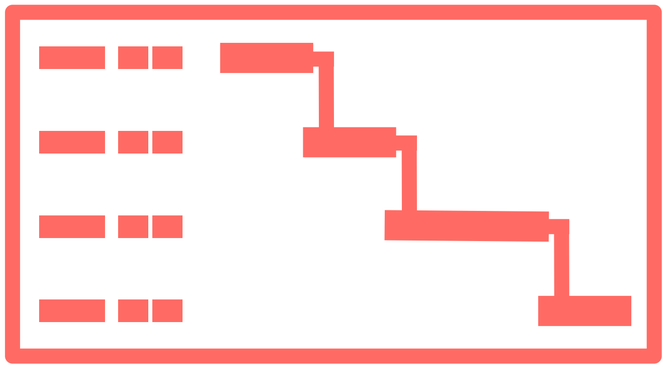




CherryPII: one week

A project is not a product

Constantly iterate, because value comes from the improvement, not the achievement



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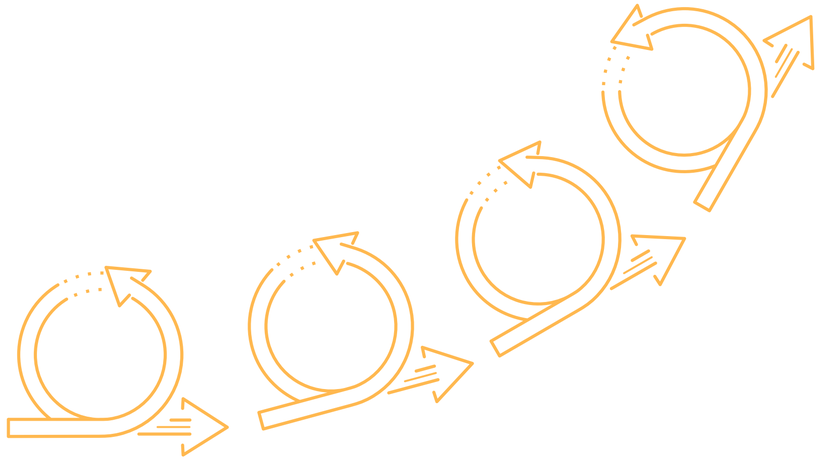

BONUS

Engineering matters

(more)

We want our teams to span the spectrum

My 3 main points

Data is NOT the new oil.

Take control and try to drive down the unit cost.

Learn to learn.

(from your data)

In digital, the fastest learners win.

Optimise for learning

Finding your first failure is much easier. Start where there's feedback and high tolerance for error.

Learning to learn

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