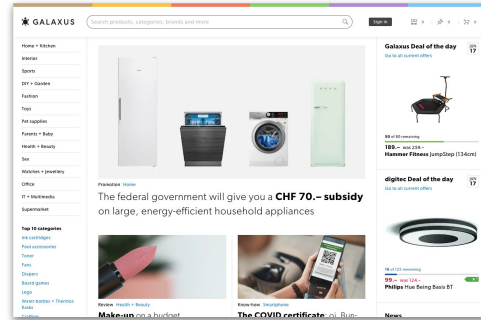
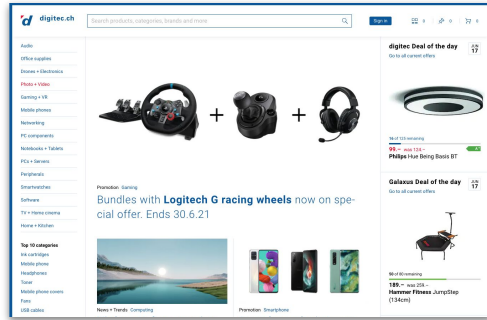


Case study

Autocomplete Search Suggestions

Dominic Bestler, Product Manager Search
MICES 2021

About Digitec Galaxus



3 online shops 2 countries
4 languages 11 physical stores

3m SKUs
500k searches/day
1.8bn revenue CHF (2020)

digitec.ch
Consumer electronics

galaxus.ch
«pretty much everything»

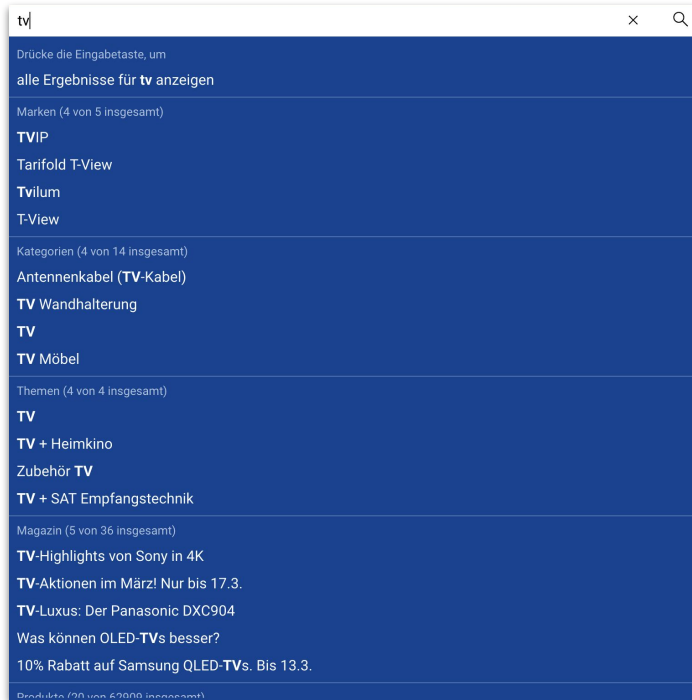
galaxus.de

Marketplace



The cause for the case

What was the problem?

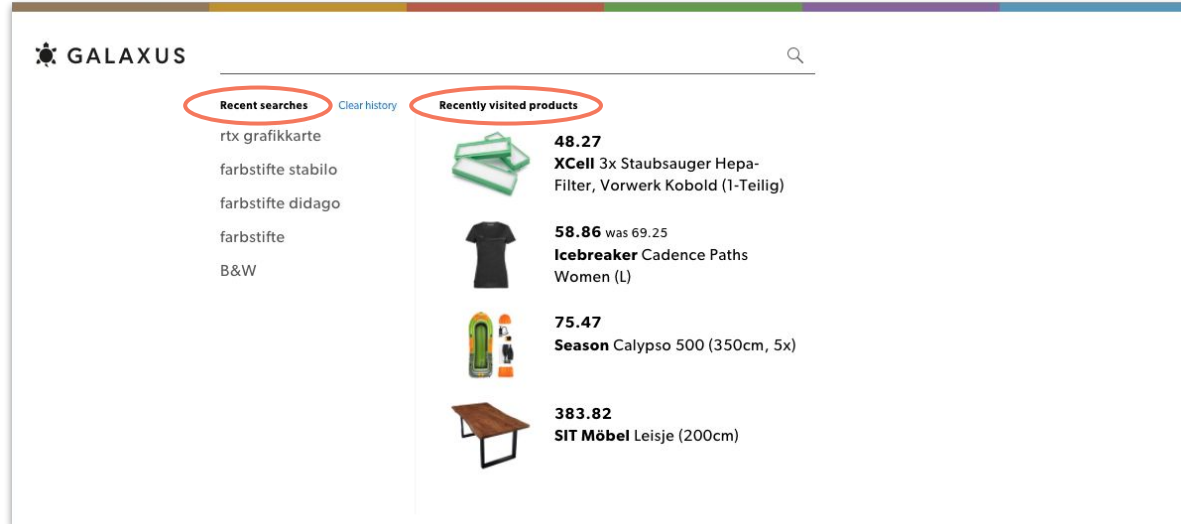


- Too many results from different sources
- Very noisy: Too much visual change as you type
- Hard to find relevant results (high cognitive load)
- Especially cumbersome on mobile devices

**How can we help users
to formulate better queries?**

What did we do?

> Help the users to NOT formulate a query



Shortcut for re-visits:

**Recent searches &
Recently visited products**

Learnings:

*Clicks on **Recently visited products** have the highest Session-CVR compared to all clicks within the search box.*

How to help formulating better queries?

Redesigned & reduced

“Don’t make me think”

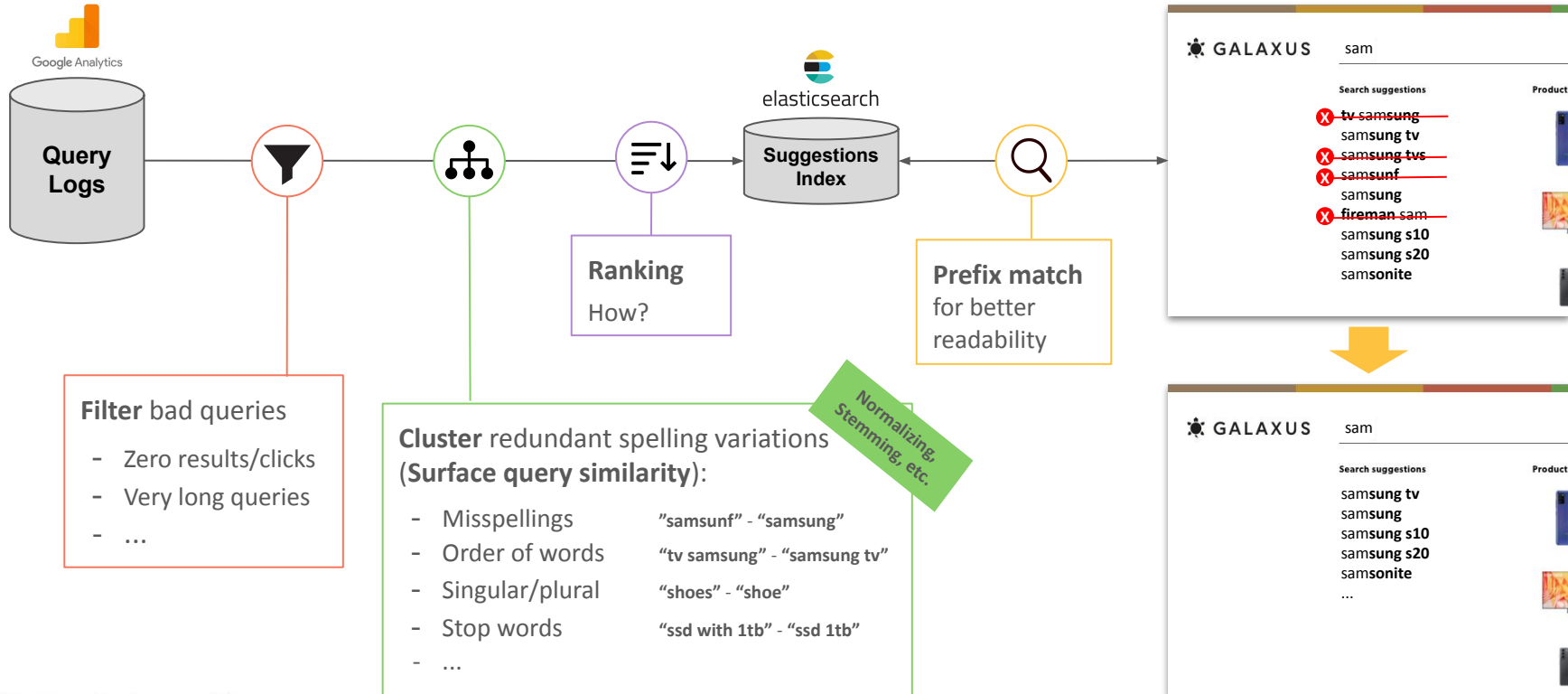
Show autocomplete suggestions to

- assist and guide to better queries
- help with domain terminology
- inspire about the types of queries



Autocomplete Suggestions from
popular and well performing search queries

Step 1: Generate & retrieve suggestions



Step 2: Rank the suggestions

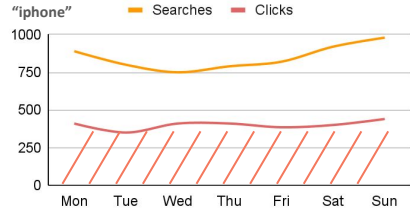


Popularity: Searches

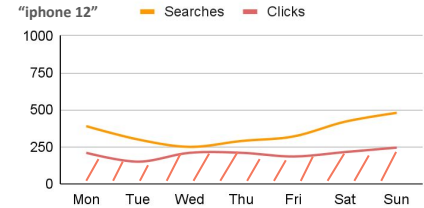
Performance: Clicks CTR CVR Revenue ...

Our approach:

$$\sum \text{Clicks} \Rightarrow \sum \text{CTR} \times \text{Searches}$$



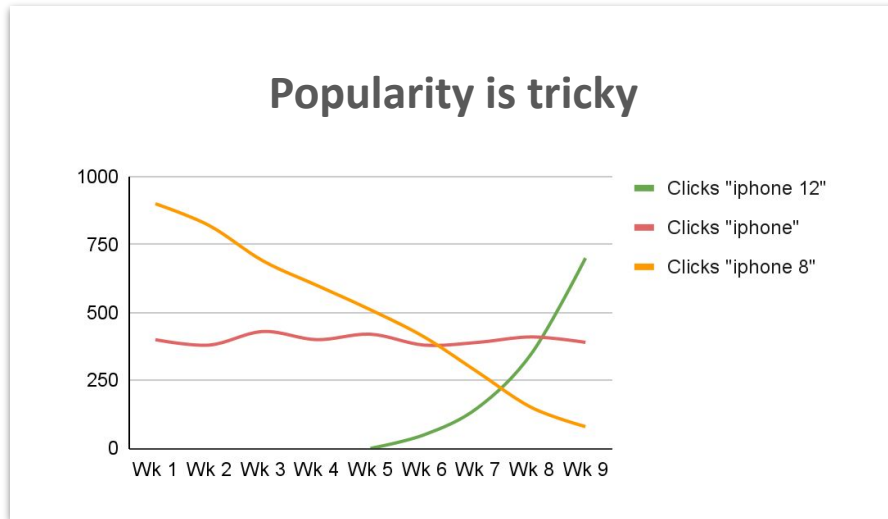
vs.



This approach puts more weight

on popularity than on performance.

Step 3: React to trends and seasonal searches



Wk 9

New iPhone 12 released

Have	Want
<p>ipho</p> <hr/> <p>Search suggestions</p> <ul style="list-style-type: none">iphone 8iphoneiphone 12	<p>ipho</p> <hr/> <p>Search suggestions</p> <ul style="list-style-type: none">iphone 12iphoneiphone 8

How sensitively should we react to trends?

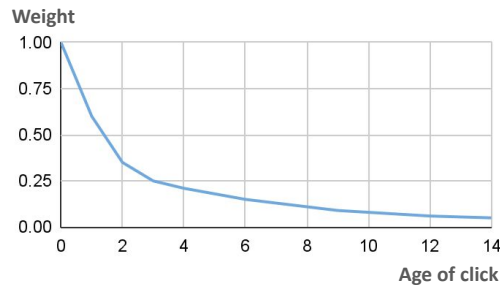
How to **balance** different types of popularities?

Step 3: React to trends and seasonal searches

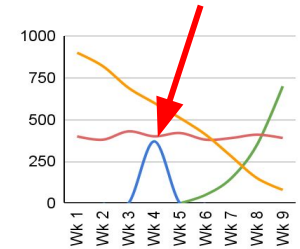
Our approach:

Penalize past clicks (exp. decay)

$$\sum \text{Clicks} \times \text{Weight}$$

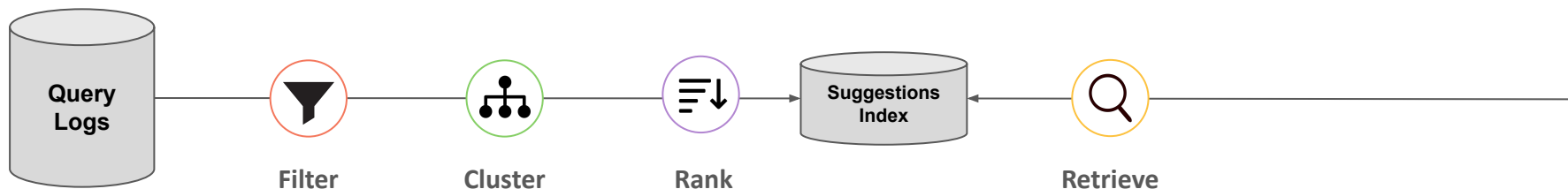


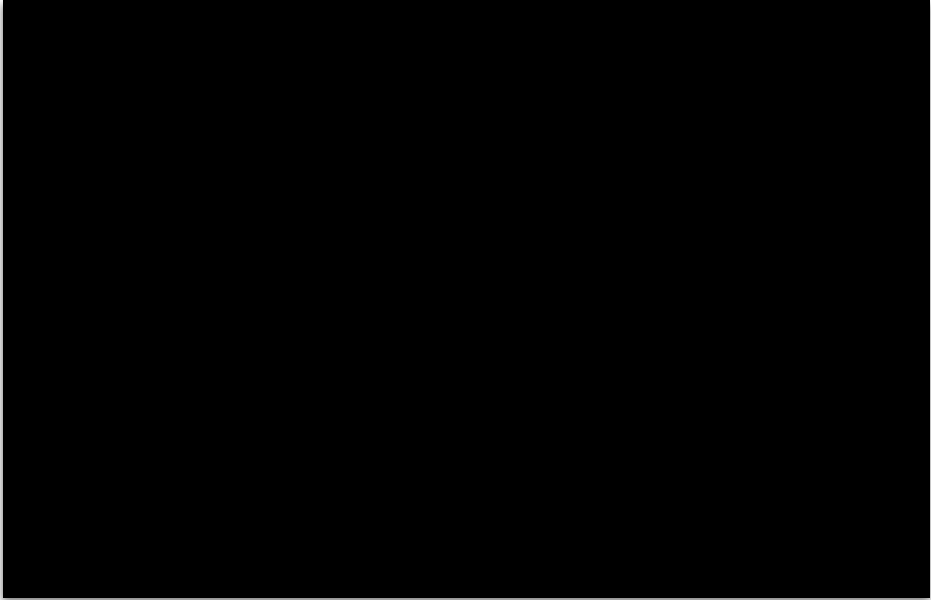
- Simple and effective
- Doesn't deal well with less popular but relatively steep trends
- ... and if they end abruptly



> Ready for further experimentation

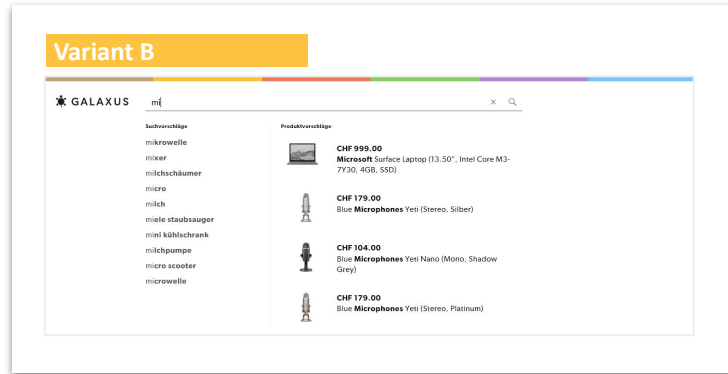
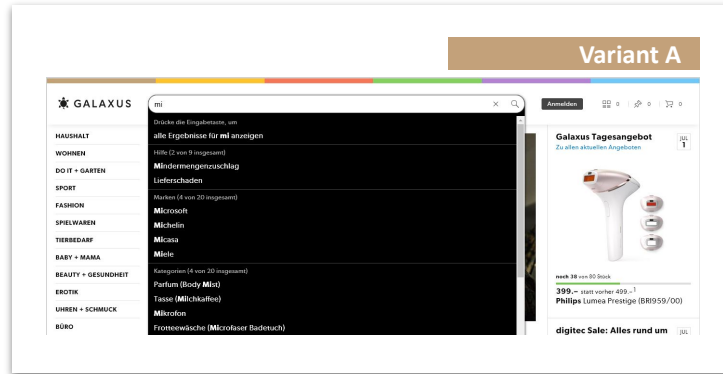
Recap: All ingredients are in place





What did we learn?

Conclusions: Key metrics perform better



Higher CTR on product results
Lower 0-results rates & exit rates
Significant traffic shift to SERP



Conclusions: **Simple yet effective solution**

Swift

Quick to develop a
viable release candidate

Lean

Suffice to start with
tracking data from Google Analytics

Thanks!
Any questions?

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