



How Hobbii used AI and LLMs to boost their search conversion rate

ALEXANDRE CASANOVA - Country Lead, Algolia

JEREMY DANA - Solutions Engineering Lead, Algolia



Alexandre Casanova
Country Lead Denmark



Jeremy Dana
Solutions Engineering Lead



Agenda

- 1 How search behaviour is evolving
- 2 Vector search the solution?
- 3 Hobbii's use of AI search
- 4 Next steps for Hobbii

Algolia at glance

17,000+ Customer Community



Global Search Partner

FRASERS
GROUP

LVMH

DECATHLON

Walgreens

99.999%
SLA available,
100% API uptime

1.75
TRILLION
Searches/Year

<50m/s
response times

100,000+
Queries per Second

30+ Awards in 12 months



MACH

PIONEER
API-first
+ Event-Driven Architecture

Search has been driving ecommerce revenue for decades

300%

Search conversion rates
are 3X Browse on
average

\$800M

Amazon's monthly revenue lift from
optimizing search results

25%

Of shoppers go straight
to the search bar

But it's far from perfect

Complex keyword searches must be overridden/ augmented

↗ **Search Abandonment**
↗ **No results**

Irrelevant, inaccurate, unpersonalized results

↘ **Conversion rates**
↘ **AOV performance**

Time consuming to manage rules, synonyms, and relevance

Hours of management by team members

Machine learning is limited to pre or post result retrieval

No true end-to-end AI

The AI Revolution is here.

Behavior is changing

AQL: 2.6 → 6.8 words → Longer queries convert better, but they're harder to match

“The Netflix Experience” → Users expect dynamic browsing

The Long Tail of Queries → 70% of queries go unoptimized

The Market is adapting



You need to move from

Matching

to

Understanding

The Old Way

KEYWORDS

(1950 - Present)

Fast, scalable search based on textual matching.

Inefficient to manage more conversational queries.

- **Manual Rules**
- **Hundreds of Synonyms**
- **Ineffective for The long tail**

VECTORS

(2013 - Present)

First generation ML/AI.

Understands query intent, better results, but expensive and/or slow at scale.

- **Out of the Box Relevance**
- **Less Dependent on Data**
- **Expensive to scale**



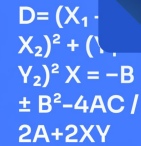
✗ Vectors are gigantic

✗ Expensive to store & process

✗ Results are too slow

✗ Lacks precision

✗ They need to be compressed


$$D = (X_1 + X_2)^2 + (Y_1 + Y_2)^2$$
$$X = \frac{-B \pm \sqrt{B^2 - 4AC}}{2A + 2XY}$$



011001...
01100100
11000100
01001

Algolia's innovation
Neural Hashing
enables us to make
practical use of
**Vectors without
crashing everything**

So, could vectors make search easier?



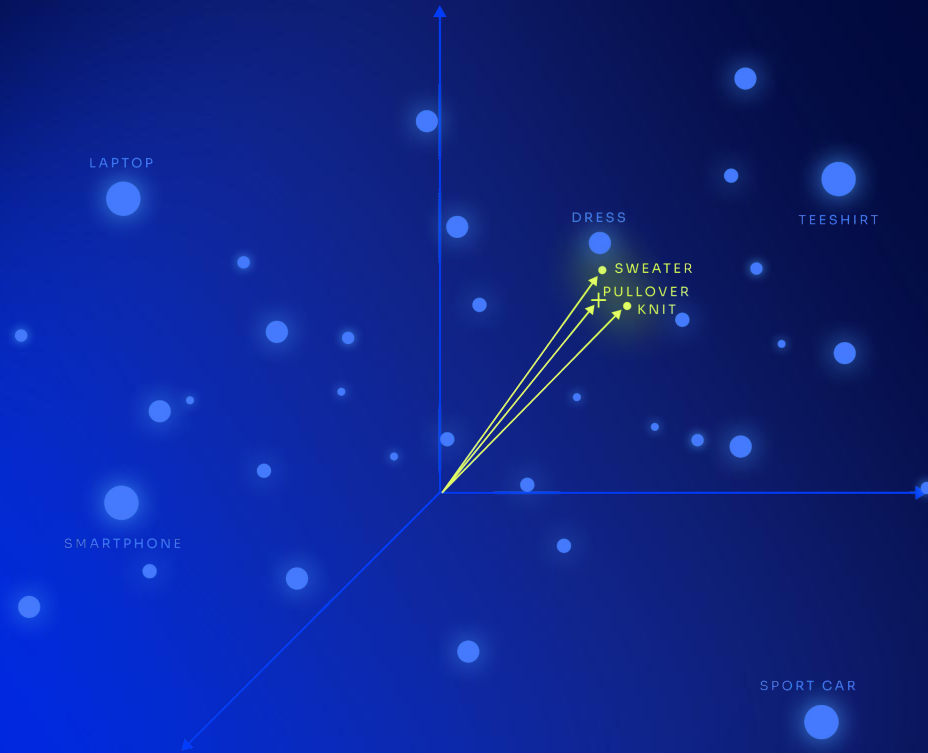
1. AI creates a map of ideas

So, could vectors make search easier?



1. AI creates a map of ideas
2. The ideas in the user's query get placed on the map

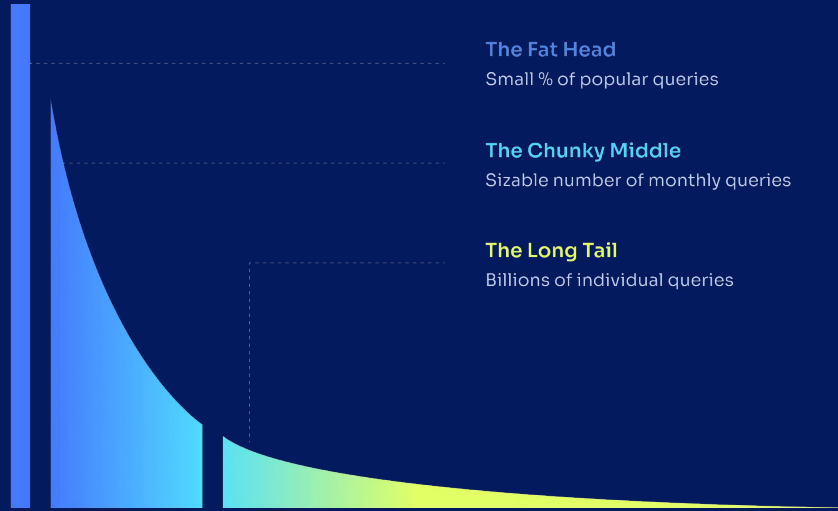
So, could vectors make search easier?



1. AI creates a map of ideas
2. The ideas in the user's query get placed on the map
3. The search engine brings back the closest ideas to the query

Vectors mean you can finally handle all of your search volume, not just the most popular queries

Why do merchants care?



<30%

Search queries are optimized easily through keyword search

>70%

Are not optimised without vector search

Now you can **handle the long tail** and the conversion data to support.

30%

improvement in revenue sitting in the long tail of results

Keywords

Fast, scalable search based on textual matching.

Inefficient to manage the long tail of results and more conversational queries.



Vectors

First generation ML/AI.
Better quality results, understands queries.

Very expensive and/or very slow at scale.

Keywords

Fast, scalable search based on textual matching precision.



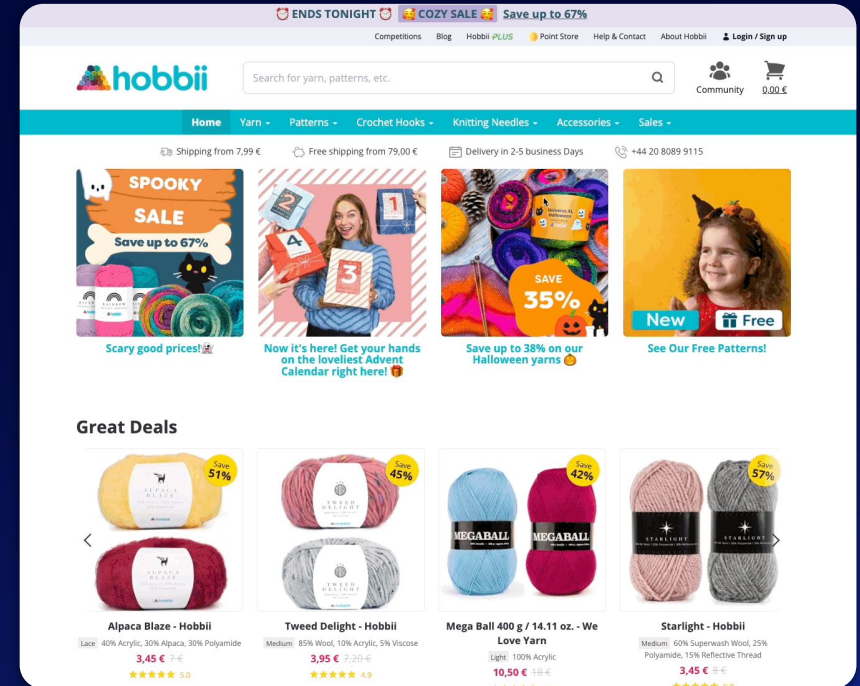
Vectors

First generation ML/AI.
Better quality results, understands queries but very expensive and/or very slow at scale.



The one-stop shop for yarn lovers around the world, providing everything you need for your next knitting or crocheting project.

- Founded in **2015**
- One of the fastest growing Danish ecommerce companies over the past decade
- Operating across **>30 countries**
- Algolia customer since **2021**



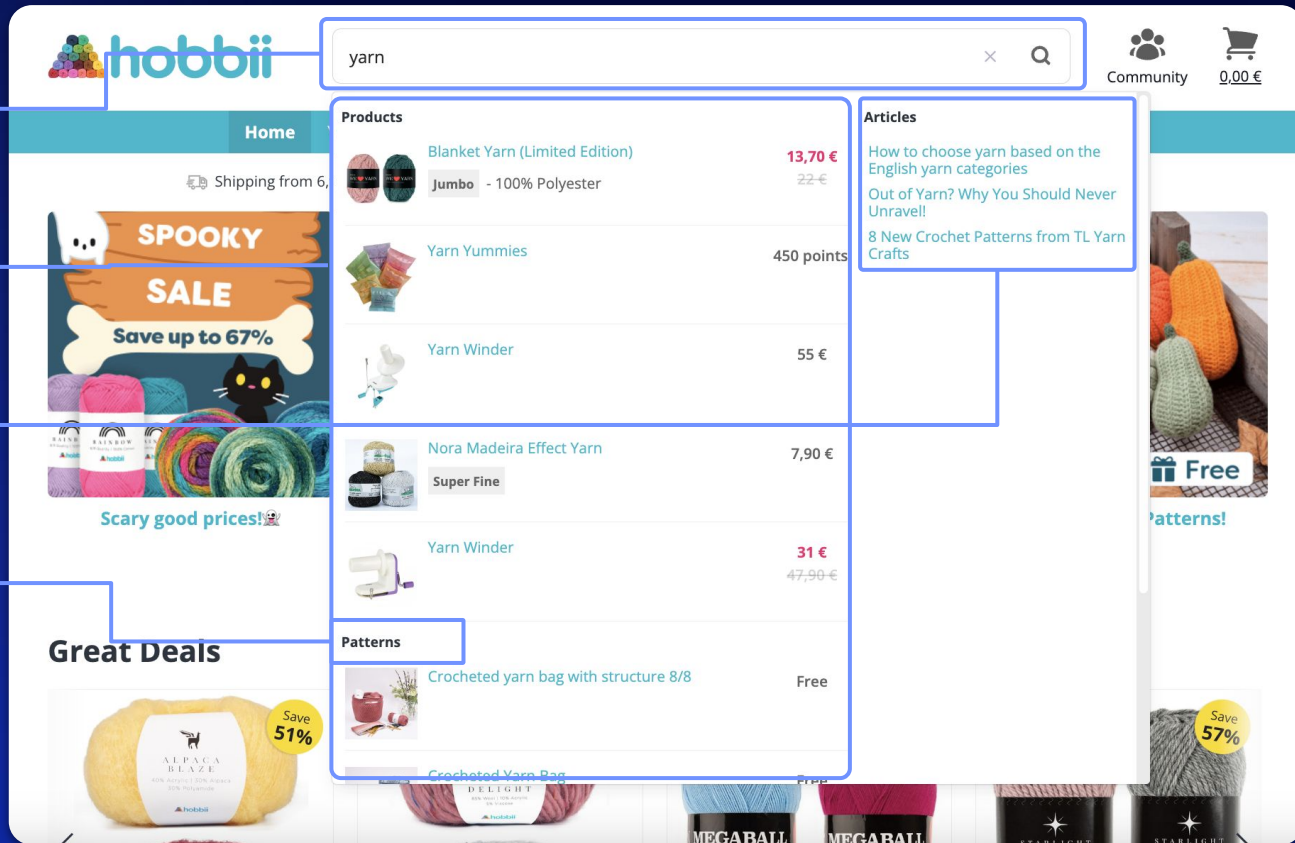
Algolia is more than just search...

“Search-as-you-type”
Powered by Algolia

Product Search Results
Powered by Algolia

Suggested Content
Powered by Algolia





Content Categories
Powered by Algolia



The screenshot shows the hobbii website interface with a search bar containing the text 'yarn'. The search results are displayed in a grid format, categorized into Products, Patterns, and Articles. A 'SPOOKY SALE' banner is visible at the top left, and a 'Great Deals' section is at the bottom left. Callouts from the left side of the image point to specific features: 'Search-as-you-type' points to the search bar, 'Product Search Results' points to the product listings, 'Suggested Content' points to the 'SPOOKY SALE' banner, and 'Content Categories' points to the 'Patterns' section.

| Category | Item | Price |
|----------|---|----------------------------|
| Products | Blanket Yarn (Limited Edition) Jumbo - 100% Polyester | 13,70 € 22 € |
| | Yarn Yummies | 450 points |
| | Yarn Winder | 55 € |
| | Nora Madeira Effect Yarn Super Fine | 7,90 € |
| Patterns | Yarn Winder | 31 € 47,90 € |
| | Crocheted yarn bag with structure 8/8 | Free |
| Articles | How to choose yarn based on the English yarn categories | |
| Articles | Out of Yarn? Why You Should Never Unravel! | |
| Articles | 8 New Crochet Patterns from TL Yarn Crafts | |

Hobbii gets better recall with Algolia NeuralSearch

| Query Type | CVR Uplift | Actual query | Results |
|---------------|--|-------------------|---|
| Fat head |  70% | Cotton | CVR: 16% 70% uplift |
| Chunky middle |  90% | Darning needle | CVR: 58% 90% uplift |
| Chunky middle |  480% | Crochet hooks | CVR: 29% 480% uplift |
| Long tail |  1000% | Friends kids silk | CVR: 10% 1000% uplift was zero earlier |

The image features a large magnifying glass with a glowing blue lens and handle, positioned centrally. The lens is focused on a complex network diagram consisting of interconnected nodes and lines, some of which are highlighted in a bright cyan color. The background is a deep blue gradient with faint, glowing hexagonal patterns and several translucent spheres of varying sizes, some containing internal grid structures. A dark blue horizontal bar is overlaid across the middle of the image, containing the text "Live Demo of Algolia NeuralSearch" in a bold, white, sans-serif font.

Live Demo of Algolia NeuralSearch

Hobbii's Results & Next Steps

+7.8%

Increase in
conversion rate

+5.7%

Increase in click
through rate

-11%

Reduction in zero
search results

"Algolia NeuralSearch helped us tackle queries that weren't generating revenue and we're excited about the potential growth it can unlock for us"



Morten Spliid

CCO |  **hobbii**



Next steps for Hobbii:

Deploying Algolia NeuralSearch across 32 countries and 22 languages.





Thanks!

—
For questions or a demo come
to the Algolia booth 52

Get in touch
alex.casanova@algolia.com

 algolia