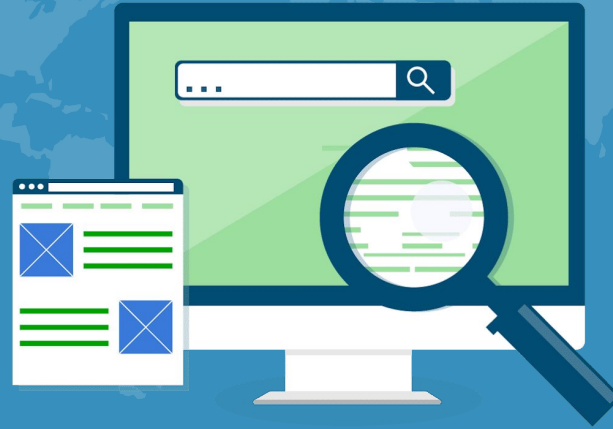




Haystack On Tour - Kraków

opensourceconnections.com

edrone, February 23rd 2023



Welcome to Haystack On Tour!

edrone , February 23rd 2023

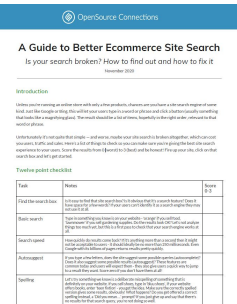
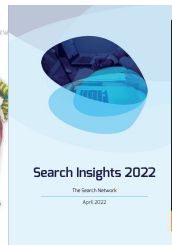
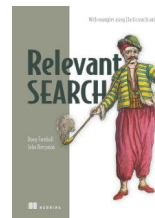
- Who are we?
 - OpenSource Connections
 - edrone
- Why is search still so hard to get right?
- What is Haystack on Tour?
- Agenda for today

Who are OpenSource Connections ?

- A [team of search engine specialists](#) with deep knowledge & decades of experience
- Our approach is data-driven, scientific and focused on business needs
- We help [organizations in the USA and EU](#) build powerful, scalable, accurate and relevant search applications by **empowering their teams to succeed** with a mix of [tools](#), [processes](#), [training](#) and [consultancy](#)

www.opensourceconnections.com

- We write books & reports



- We host leading search events...



www.haystackconf.com

...and present at many more

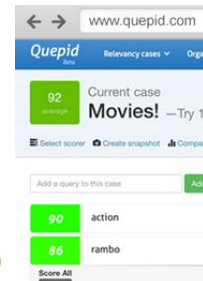


- We build open source, free tools for tuning search engines

```
1 {
2   "query": {
3     "query": {
4       "matching_query": {
5         "query": "notebook"
6       },
7       "query_fields": [ "title^3.0", "brand^2.1", "shortSummary",
8         "rewriters": [ "common_rules" ]
9     }
10  }
11 }
```



Elasticsearch Learning to Rank GO



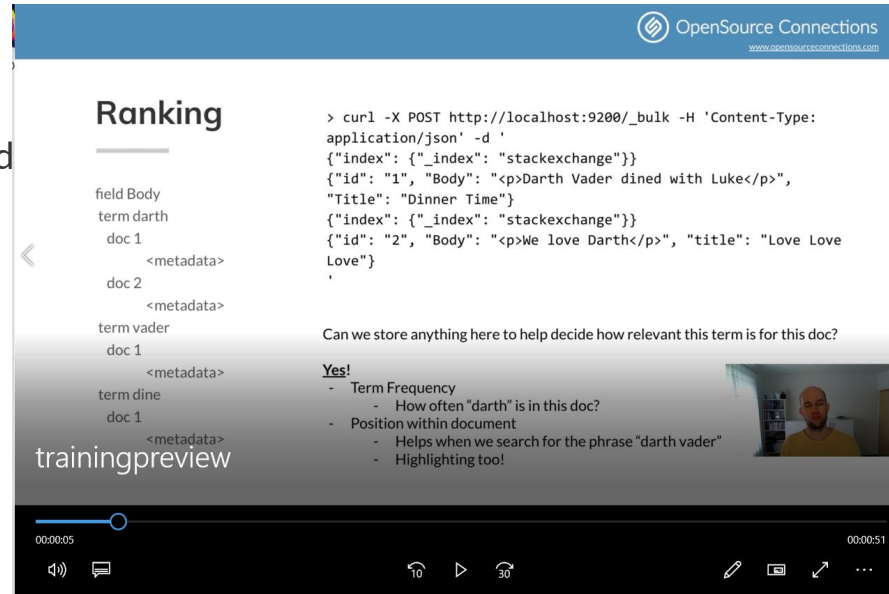
New trainings

Think Like a Relevance Engineer - now self-led on Moodle! Videos, slides, labs & quizzes - 5 week course with instructor sessions every Tuesday 930-11am US Eastern Time

- TLRE Elasticsearch - from 20th March
- TLRE Solr - from 1st May
- Hello Learning to Rank - dates to be announced
- www.opensourceconnections.com/training

Beyond Relevance - Search Result Quality

- In person at Haystack US
- Thursday 27th & morning of Friday 28th April
- Charlottesville, Virginia
- Tickets at www.haystackconf.com



The screenshot shows a video player interface for a training session. The top right corner features the OpenSource Connections logo and website URL. The main content area is titled "Ranking" and displays a JSON response from a curl command. The JSON shows two documents with different titles and bodies. Below the JSON, there is a question: "Can we store anything here to help decide how relevant this term is for this doc?". The answer is "Yes!" and lists three points: Term Frequency, Position within document, and Highlighting too!. A small video thumbnail of the instructor is visible in the bottom right corner of the content area. The video player controls at the bottom show a progress bar at 00:00:05, a volume icon, a chat icon, a play/pause icon, a 30-second skip icon, and a full screen icon.

```
> curl -X POST http://localhost:9200/_bulk -H 'Content-Type: application/json' -d '{
  {"index": {"_index": "stackexchange"}},
  {"id": "1", "Body": "<p>Darth Vader dined with Luke</p>", "Title": "Dinner Time"}},
  {"index": {"_index": "stackexchange"}},
  {"id": "2", "Body": "<p>We love Darth</p>", "title": "Love Love Love"}},
  .
}
```

Ranking

field Body

term darth

doc 1

<metadata>

doc 2

<metadata>

term vader

doc 1

<metadata>

term dine

doc 1

<metadata>

trainingpreview

Can we store anything here to help decide how relevant this term is for this doc?

Yes!

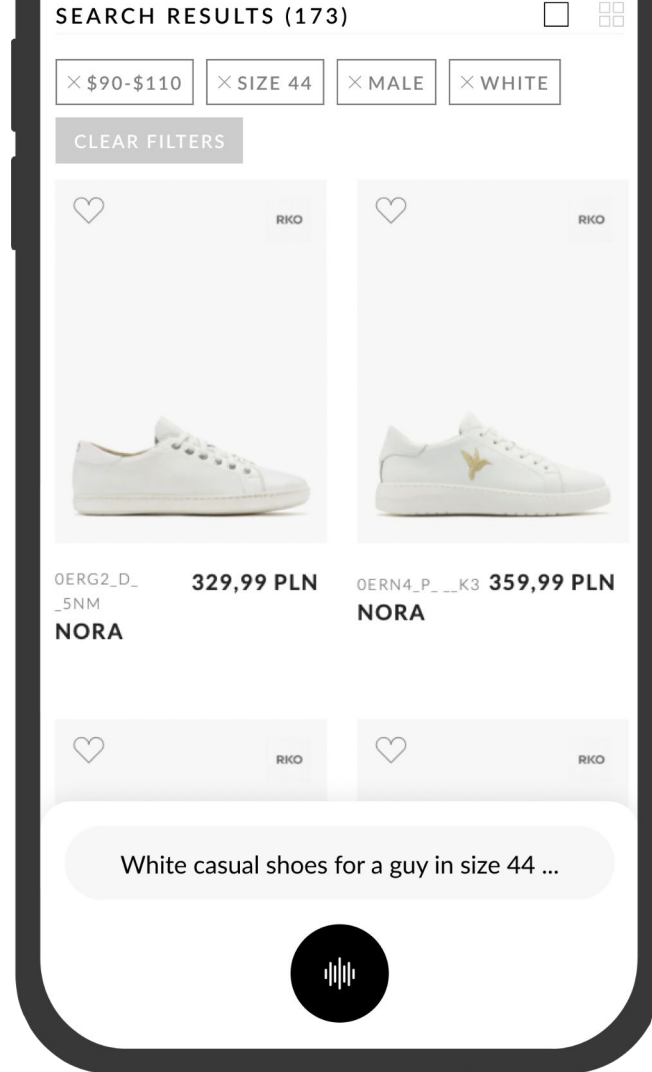
- Term Frequency
 - How often "darth" is in this doc?
- Position within document
 - Helps when we search for the phrase "darth vader"
 - Highlighting too!

Who are ?

- Advanced tools for e-commerce
- 1200+ shops
- 20+ R&D team working on Voice Search



Well-Architected

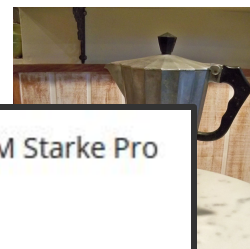


Why is search still so hard to get right?

I don't speak your language!



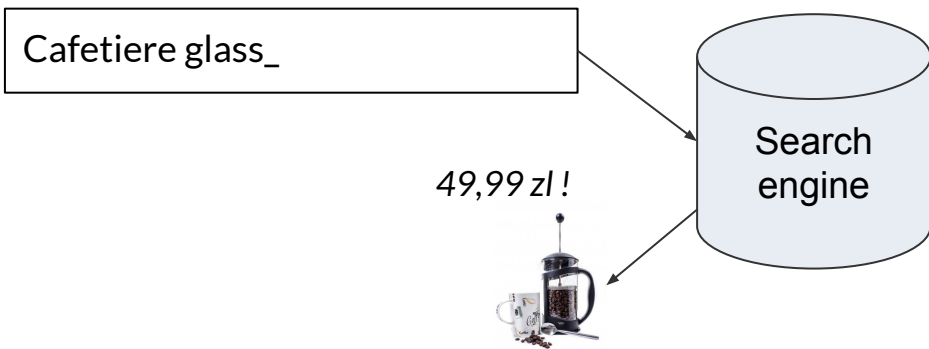
French press



?? 0 results ??

...
"dzbanek do kawy"

I don't know what you want!

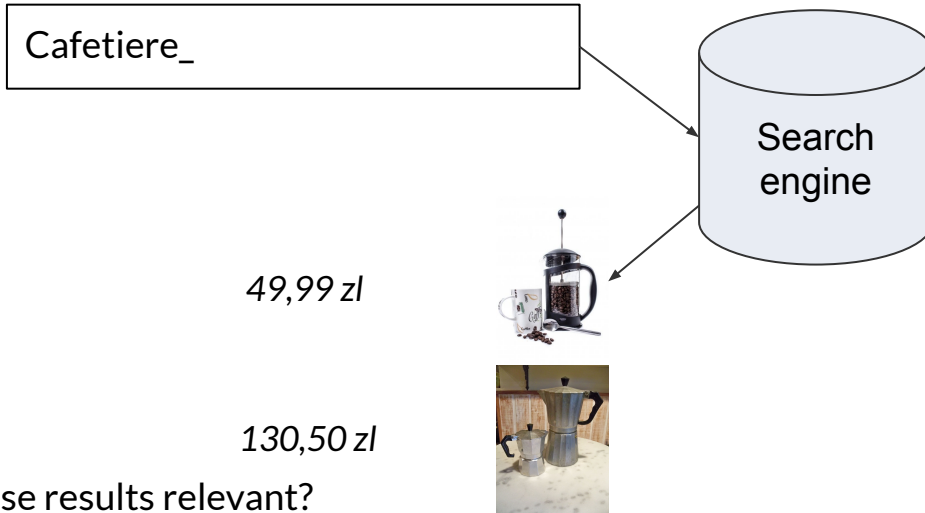


“Actually I wanted some new glass for my old broken cafetiere....”



Intention is hard to guess.

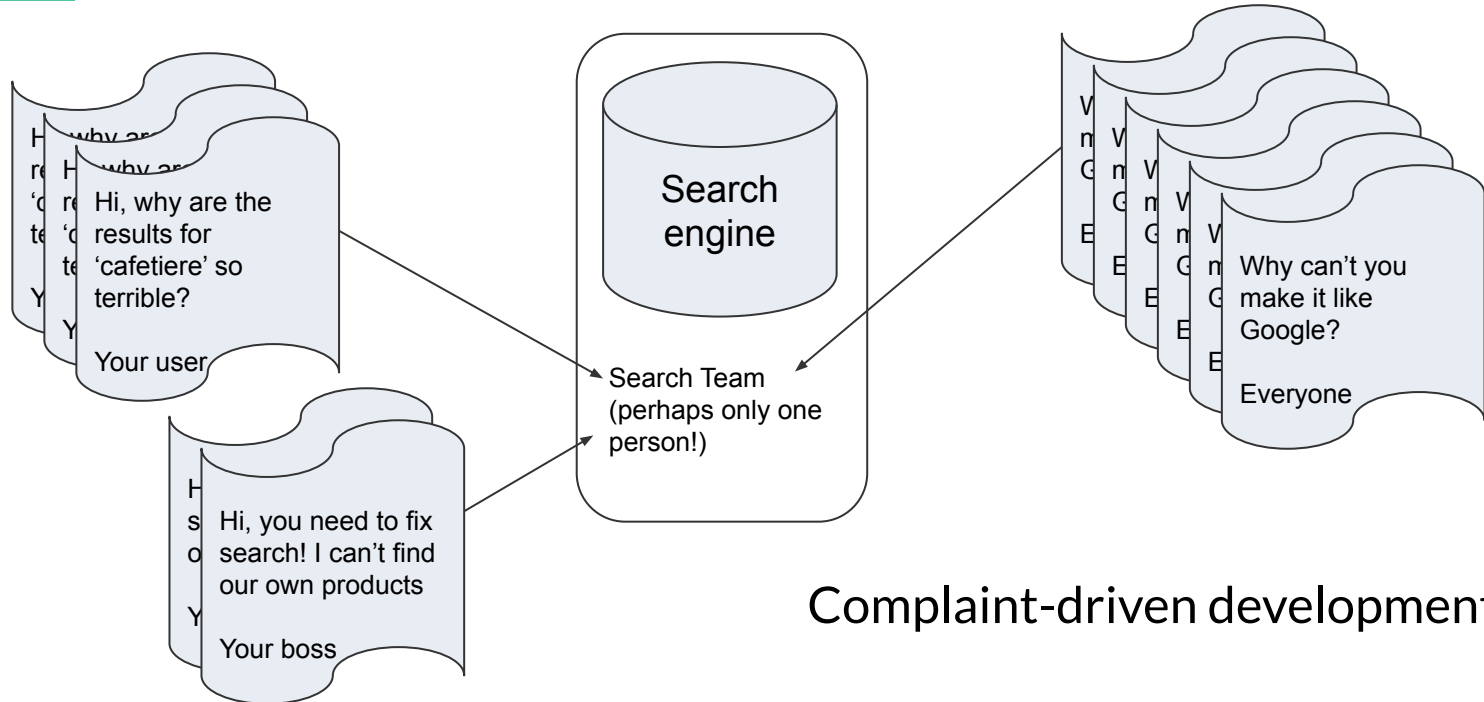
I don't know how good my search is!



Are these results relevant?
How can I measure this?
What metrics can I produce?

Relevance is subjective.

Everybody hates my search engine!



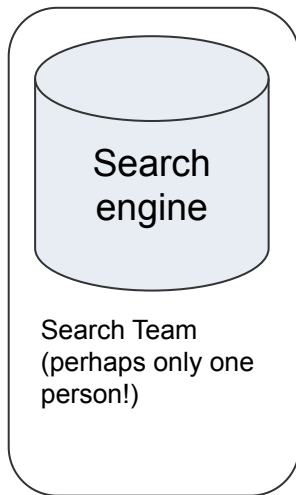
Complaint-driven development

Too many choices!

Commercial platforms



On-prem?
SaaS?
PaaS?



Open source platforms



Vector search



Weaviate
Open Source

“All that glitters is not gold”

A wicked problem



*“This helps to explain why an approach which takes individual elements of a search solution and tries to solve them **will almost certainly fail**. The requirement is to work as a team across multiple elements of an Enterprise Search implementation with a leader with the experience to challenge and then work with a team to resolve an element. Even then **there is a high probability that not all the elements can be resolved**, which is why Enterprise Search applications need to be well supported with a search team post a nominal implementation.”*

*a **wicked problem** is a problem that is difficult or impossible to solve because of incomplete, contradictory, and changing requirements that are often difficult to recognize. (Wikipedia)*

<https://www.linkedin.com/pulse/why-enterprise-search-wicked-problem-martin-white/>

A wicked problem



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What is Haystack On Tour?



Haystack Events since 2018



- Haystack US - April, Charlottesville x 4
- Haystack EU - Sep/Oct, London x 1, Berlin x 2, ??
- [Haystack LIVE! Meetup](#) - every 4-6 weeks, Thursday 5pm CET
- First Haystack On Tour Paris, November 2023 - more planned
- Most talks available as recordings on [Youtube](#)

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- Most talks available as recordings on [Youtube](#)
- *“Haystack is the conference for organizations where search, matching, and relevance really matters to the bottom line. For search managers, developers, relevance engineers & data scientists finding ways to innovate, see past the silver bullets, and share what actually has worked well for their unique problems. Please come share and learn!”*

Haystack this year



- Haystack US - April, Charlottesville x 4
 - Week of 24th April 2023
 - Start with a Meetup the evening of Monday 24th April
 - Main conference days Tuesday 25th & Wednesday 26th April
 - Stay in town for trainings, hacking & a free co-working space 27th April
 - Social event on Friday 28th April (we hope to organise a tour of local wineries)
 - Tickets on sale now at www.haystackconf.com

We want to....

- Help you with today's search problems

We want to....

- Help you with today's search problems
- Show you what's coming next in search

We want to....

- Help you with today's search problems
- Show you what's coming next in search
- Encourage mutual support:
 - Help you learn from each other
 - Give you a chance to make new contacts
 - Build the Polish search community

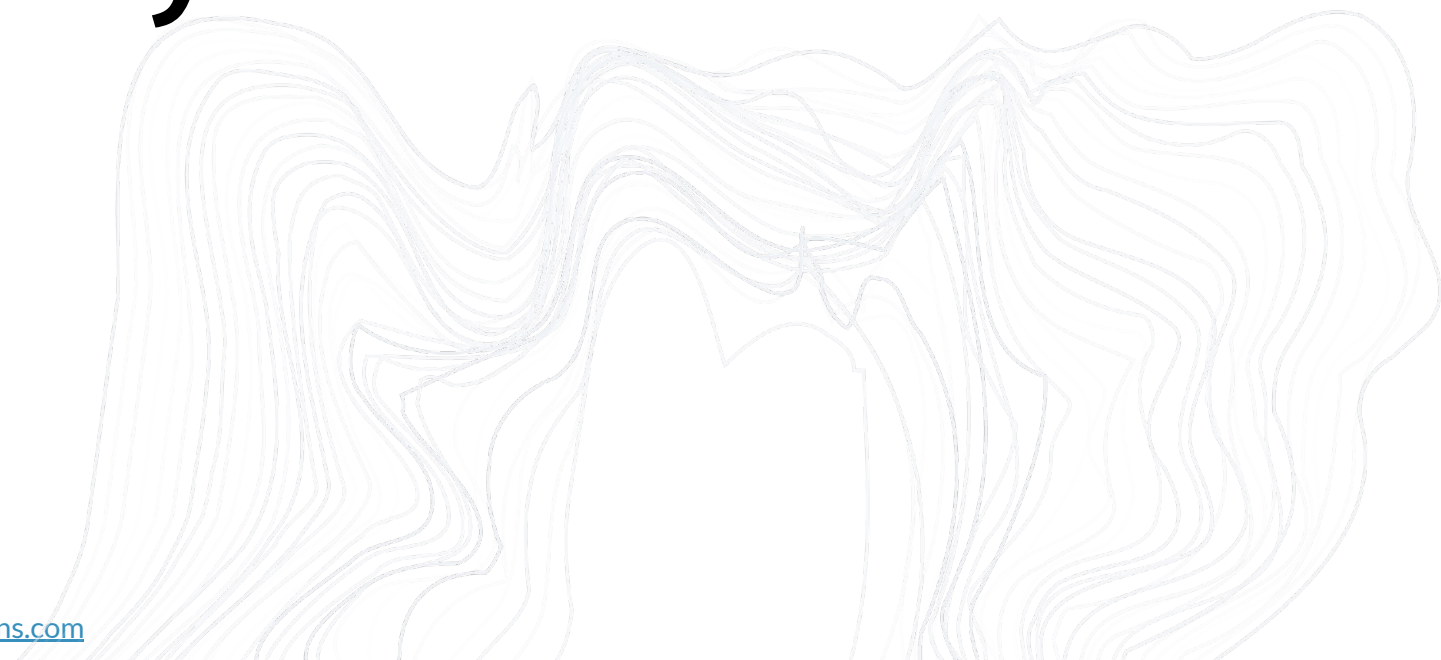
Building amazing search is hard.

Let's try and make it easier, together!

Agenda

- | | |
|---------------|---|
| 14:00 – 15:00 | Intro: Charlie Hull: “Why is search still so hard to get right?”
Rene Kriegler: “Towards systematic search quality improvement” |
| 15:00 – 15:10 | <i>Break / Generate Topics for Barcamp</i> |
| 15:10 – 15:40 | Piotr Stachowicz: “Voice Search – challenges & opportunities” |
| 15:40 – 16:10 | Arek Flinik (Lekta.AI): “Searching in the real world: why people not always want what they say they want – UX lessons learned from implementing search functions in commercial voice applications” |
| 16:10 – 16:30 | <i>Break for finger food / Generate Topics for Barcamp</i> |
| 16:30 – 17:00 | Atita Arora: “Vectorise your E-commerce Search” |
| 17:00 – 17:30 | Zbyszko Papierski: “Content deduplication: vector vs keyword approaches” |
| 17:30 – 17:50 | <i>Aggregate topics & vote for Barcamp topics</i> |
| 17:50 – 19:30 | Barcamp (Food available from 19:00) |
| 19:30 – 22:00 | Networking |

Thank you.



Thanks for coming!

And thanks to our kind hosts and all our speakers!

Further Information

Events & groups

Haystack Conference (US week of April 24th, EU in September/October) www.haystackconf.com

- **Submit your talk and tickets now on sale!**

Haystack LIVE! Meetup (every 4-6 weeks online) <https://www.meetup.com/Haystack-Search-Relevance-Online/>

Relevance Slack www.opensourceconnections.com/slack

OSC Youtube (100+ talks) <https://www.youtube.com/c/OpenSourceConnections>

When is the next Polish search event?

Further reading (more on the OpenSource Connections website!)

Search Insights <https://thesearchnetwork.com/publications/>

Searching the Enterprise

https://opensourceconnections.com/wp-content/uploads/2020/08/ES_book_final_journal_version.pdf

Relevant Search <https://opensourceconnections.com/blog/2015/04/09/osc-is-taming-search/> (with discount code!)

AI-Powered Search <https://www.manning.com/books/ai-powered-search>