### How to get better search

# WP Search with Relevanssi



### **Relevanssi family** Three variations

- Relevanssi Released in 2009, 100k+ active installations!
- Relevanssi Premium Released in 2011, 2500 active licenses
- Relevanssi Light Released in 2020

Relevance: "the degree to which something is related or useful to what is happening or being talked about"

**Cambridge Dictionary** 

## Searching 101

## •Optimize RECALL and PRECISION

# **RECALL**: all relevant results **PRECISION**: only the relevant results

## Searching 101

# •**RELEVANCE**: which of these results is the best match?

# How does Relevanssi help?

### •**RECALL**: Relevanssi exposes more of the post for searching

•**PRECISION**: admins can adjust the search parameters

### •**RELEVANCE**: score the results and show the best results first

### Hot Relevanssi tip: Content stop words

aren't important for searching: the, all, have, are, those, mostly, that, aren't, for, else, due, rather... Generally you don't want to include them, but sometimes they are very important

### Stop words are those mostly useless little words that





### 

### Only On PlayStation.







Online Interactions Not Rated by the ESRB



### Hot Relevanssi tip: Content stop words

**Relevanssi Premium has separate stop words for** titles and content You can have all the stop words removed from

content but kept in the title

This leads to improved precision AND recall

# How does searching work, actually?



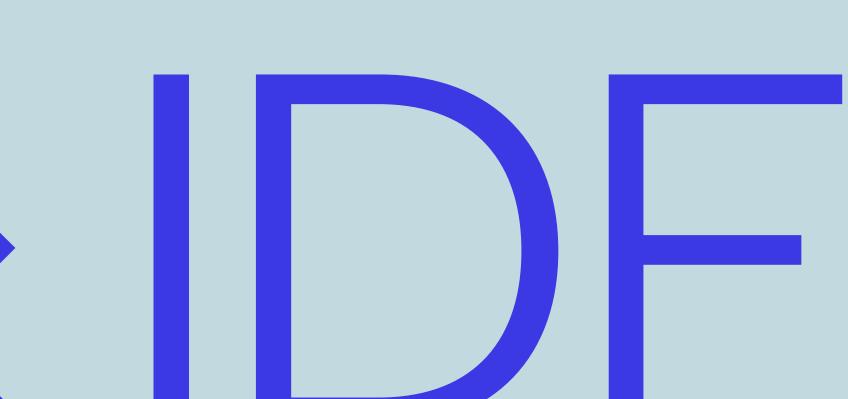
# Index

**Relevanssi builds an index from the posts** 

			1		
doc	term	term_reverse	content	title	commer
2	things	sgniht	1	0	0
2	user	resu	1	0	0
2	visitors	srotisiv	1	0	0
2	website	etisbew	1	0	0
2	wordpress	sserpdrow	1	0	0
2	xyz	zyx	2	0	0
3	accepts	stpecca	1	0	0
3	account	tnuocca	3	0	0
3	additional	lanoitidda	3	0	0
3	address	sserdda	4	0	0
3	administrative	evitartsinimda	1	0	0
3	administrators	srotartsinimda	1	0	0
3	agent	tnega	1	0	0
3	analytics	scitylana	1	0	0
3	anonymized	dezimynona	1	0	0
3	approval	lavorppa	1	0	0

# 

### **Term Frequency** ×**Inverse Document Frequency**



# Adjustments When we do the maths, we can break the rules





## **Customizing the search results**



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# Adjusting the settings

- Things you can do from Relevanssi settings
  - choose which post types to include
  - choose between AND and OR search
  - boost recent posts
  - add synonyms



# relevanssi\_hits\_filter

- With this filter hook, you can
  - change the order of the results
  - add new posts to the results
  - remove posts from the results
  - modify the posts before the results are displayed





## relevanssi\_post\_content

- With this filter hook, you can
  - exclude parts of the post from index
  - combine data from different sources

n index ources

### Hot Relevanssi tip: Stemming

a NIGHTMARE when searching! Enter stemming: all of those different word forms become "koir".



# Koira, koiran, koiralle, koiralta, koirineen, koirilleen, koirinensa, koirillensakaan... Finnish language can be



### Hot Relevanssi tip: Stemming

# There's a Relevanssi Premium add-on plugin that provides a stemmer for 10+ languages:

If you want a proper stemmer, you can install the Relevanssi Premium Snowball Stemmer addon plugin. This plugin implements a proper stemmer for over dozen languages. The stemmer used is the <u>Wamania native PHP stemmer</u>, this plugin just makes it easy to use with Relevanssi Premium.

### **Current language support**

Catalan • Danish • Dutch • English • Finnish Romanian • Russian • Spanish • Swedish

### Installing the plugin

The best way to install this plugin is as a <u>Composer</u> package from GitHub. That way you can get access to updates, in case the Wamania PHP stemmer is updated.

 $Catalan \cdot Danish \cdot Dutch \cdot English \cdot Finnish \cdot French \cdot German \cdot Italian \cdot Norwegian \cdot Portuguese \cdot Italian \cdot Norwegian \cdot Norwegian \cdot Portuguese \cdot Italian \cdot Norwegian \cdot Portuguese \cdot Italian \cdot Norwegian \cdot Nor$ 

# A few words on performance

# Relevanssi Light is the fastest search • Relevanssi can be made faster: optimise excerpt creation or disable Indexing: don't index unnecessary content

•Throttle: only look at 500 posts per term • **Excerpts**: count words not characters,





Wait, there's more! Why use Relevanssi?

- Total control
- Search for attachment content (Premium)
- Search for user profiles (Premium)
- Related Posts (Premium)
- Redirects (Premium)



### **Get Relevanssi!**

• Relevanssi and Relevanssi Light can be found in the WP.org plugin repository

• Relevanssi Premium can be found at www.relevanssi.com

• Use coupon **SERAVO** for a 20% discount