Failed Searches Analysis

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Failed Searches – What and Where

- A ‘Failed Search’ results when 0 matches occur
- Found in the ‘Stats’ tab in the KB Admin Tools within the ‘Search Log’
- Used full 2020 Failed Search log
  - About 26,000 total entries
  - Viewed and manipulated as .CSV file

No.	Search Term	Topic	Site	Matches	Search Mode	IP Address	Time
1	37069752025		ext	0	KWS	179.52.193.179	2021-07-20 17:02:00
2	reinstall jabber		int	0	KWS	146.151.192.204 [kb-system@wisc.edu]	2021-07-20 16:56:45
3	reinstall jabber		int	0	KWS	146.151.192.204 [kb-system@wisc.edu]	2021-07-20 16:56:43
4	voip dailing		int	0	KWS	10.134.96.225 [kb-system@wisc.edu]	2021-07-20 16:37:49
5	dailing patterns		int	0	KWS	10.134.96.225 [kb-system@wisc.edu]	2021-07-20 16:36:45
6	PF110CF2		ext	0	KWS	47.31.230.5	2021-07-20 16:24:41
7	onetrust		int	0	KWS	71.82.236.17 [barca@wisc.edu]	2021-07-20 15:38:54
8	2E229405S		ext	0	KWS	197.156.103.69	2021-07-20 15:34:01
9	2E229405S		ext	0	KWS	197.156.103.69	2021-07-20 15:33:54
10	are canvas materials the property of the instructor who created		ext	0	KWS	97.80.88.208	2021-07-20 14:52:30
11	foxin	Windows	ext	0	KWS	157.36.54.145	2021-07-20 14:31:36

A1 | term

	A	B	C	D	E	F	G
1	term	site	cat	ip	date	matches	advanced
2	A=0	ext	931	201.188.21	1/1/2020 0:40	0	0
3	94:14:7a:98:8a:8e	ext	0	157.43.45.:	1/1/2020 9:49	0	0
4	LinkedIn: Log In or Sign UpÂ	ext	0	131.107.16	1/1/2020 10:11	0	0
5	LinkedIn: Log In or Sign UpÂ Guia do Estudan	ext	3464	131.107.16	1/1/2020 10:11	0	0
6	LinkedIn: Log In or Sign UpÂ Guia do Estudan	ext	139	131.107.16	1/1/2020 10:11	0	0
7	LinkedIn: Log In or Sign UpÂ Guia do Estudan	ext	0	131.107.17	1/1/2020 10:11	0	0
8	LinkedIn: Log In or Sign UpÂ Guia do Estudan	ext	343	131.107.16	1/1/2020 10:11	0	0
9	Windows 8.1-How to repair Errors that Preve	ext	0	102.254.18	1/1/2020 18:57	0	0
10	Windows 8 - How to repair errors that prever	ext	0	102.254.18	1/1/2020 18:59	0	0
11	Windows 8 - How to repair errors that prever	ext	0	102.254.18	1/1/2020 18:59	0	0
12	Windows 8 - How to repair errors that prever	ext	0	102.254.18	1/1/2020 19:00	0	0
13	Windows 8 - How to repair errors that prever	ext	0	102.254.18	1/1/2020 19:00	0	0
14	Windows 8 - How to repair errors that prever	ext	0	102.254.18	1/1/2020 19:00	0	0
15	Windows 8 - How to repair errors that prever	ext	0	102.254.18	1/1/2020 19:01	0	0
16	Windows 8 - How to Repair Errors that preve	ext	0	102.254.18	1/1/2020 19:02	0	0
17	How to Repair Errors that Prevent Windoows	ext	0	102.254.18	1/1/2020 19:03	0	0
18	firfox update	ext	0	10.163.130.181			
19	firfox	ext	0	10.163.130.181			

Purpose

Why are we looking into the Failed Search Log?

Purpose for Analyzing Failed Searches

Find Actions to Improve Tier 0 Support

- Want to ensure users are finding the content they want
- Understand what we should change or prioritize in the future

Understand How Users Utilize the KB Search Function

- Find trends and commonalities across search log
- See what usually results in a failed search as opposed to a successful search

Process

How I went about investigating the Search Log

Processes of Analysis

Cleaning The Search Log

- Using a Java program and Excel to remove large amounts of useless terms
  - Obvious bot searches, duplicates, gibberish, etc.
  - Resulted in about 5,000 remaining useable searches
- Looking into why so many terms were unusable

Parsing Through Remaining Terms

- Finding the most common words and phrases automatically
- Manually recording general trends
- Examining how findings can improve KB

Findings

Which trends seemed prominent?

Most Obvious Trends

- Use of the words “how”, “where”, “what”, and other question terms
  - General use of formal semantic English caused a significant number of searches to fail
- Typos appeared more than any other common failed search
  - Around half of the final 5,000 terms consisted of typos
- Both internal and external searches using slightly different language than documentation
  - For example, “Zoom *merge*” results in a failed search, while “Zoom *integration”* returns multiple relevant docs
- IP and MAC addresses
  - Each appeared a few hundred times in the log, though there were few common ones entered

Actions

What can we do to improve?

Actions Taken Based on Findings

Record Most Common Typos

1. Find the most misspelled words within the search log
2. Generate a list of possible misspellings for that word
3. Compare possible misspellings against failed search log
4. Record the top 5-10 most common misspellings
5. Enter list of common typos into the Synonyms list in the KB

Create a KB Document For Success

- "Successful Searches in the KB"
  - Doc 111054 is linked after a failed search in the Help Desk KB
- Makes use of information and findings found across Search Log
  - Use simple and concise language
  - Utilize keywords
  - Check for typos

Thank You!