

# **7 Tips for Optimizing Your Content for Natural Language Processing (NLP)**



# What is Natural Language Processing?

- Natural language processing (NLP) refers to how computers understand, interact with and respond to natural language. The term natural language itself is a psychological term used to refer to any language used by humans to communicate with each other - this distinguishes it from coding.



# Why is Natural Language Processing Important?

- Natural language processing is a huge part of the computer science/artificial intelligence field. Closer to home, it's a fundamental part of a search engine.
- When we interact with Google (or any search engine for that matter), we use natural language to type (or even verbally state) our query, regardless of whether you are using keywords or full sentences.
- The search engine's natural language processing functions is what allows it to respond to queries accurately.



# A Quick History of Natural Language Processing and Search Engines

- During the 90s, the internet became more accessible to people around the world, and several search engines came into prominence, such as AskJeeves and MSN Search, among others. Many of these early search engines used keyword-based algorithms to determine page rankings. This is why keyword stuffing became so popular with early copywriters.
- When Google launched in 1998, they set themselves apart from the pack by using a new algorithm called PageRank to determine page rankings. The algorithm used the number of backlinks to determine ranks and not solely keywords. Human-generated links to a specific page became a vital part of determining a page's importance.



# A Quick History of Natural Language Processing and Search Engines

- In the years since then, various different additions and adaptations have been made to Google's algorithm. (It is actually estimated that there are over 250 indicators of quality content in the algorithm.) In 2013, Google introduced the Hummingbird algorithm which made significant changes to the search engine's natural language processing feature. No longer did writers and internet users have to be as strict with keyword inclusion as they once were.
- In the last five years, even more changes have been made to this system to make it better understand search queries and be less reliant on keywords. In April 2018, Google even released a tool called "Talk to Books" that allowed people to search queries in a cordoned off part of the search engine, and brought up relevant answers that did not have any relevant keywords in them.



# Why is Natural Language Processing Important in SEO?

- Well, as already previously stated, search engines respond to a user's query based on what it understands the question to be. As many search engines have moved far beyond the idea of keyword matching, keyword stuffing is no longer a requirement for ranking well.
- Instead, webmasters/copywriters should now be focusing on creating quality that answers questions in the best way possible. (This goes back to the featured snippets discussion where a lot of research should be placed on discovering what questions people are asking and how they are asking them.)





# **7 Tips for Optimizing Your Content for Natural Language Processing**



# 1. Research what people are asking

- Research suggests that topics are more important than keywords. While it is still helpful to know how people are asking questions semantically, it doesn't matter how it's being asked if no one is searching it.



## 2. Write with the reader in mind

- Don't write blog posts or pages with the simple idea that something needs to be uploaded. Write pages that you would find informative and helpful in aiding the user finding out what they want to know.
- This also includes avoiding making your content difficult to read (for example, through keyword stuffing or not writing for your audience.) Google is stupid, so save your word of the day for your friends.



# 3. Be direct in your answers

- Remember with featured snippets that Google's algorithm prefers it when you answer questions directly i.e. [entity] is [answer]. The longer it takes Google to recognise the answer, the less likely it is to rank you well for a particular question.
- For example, if your question is “Who is the richest person in the world?” answer it with a direct statement like “Jeff Bezos is the richest person in the world. He is one of the biggest shareholders in Amazon.”





## 4. Keyword salience

- In your keyword research, you need to make sure that you've got a focus keyword and you are using clear synonyms, but that's not enough.
- There are certain words related to the concept that will appear on other pages that you will need to include on your page in order for Google to recognise the overall topic you're going for. (TF-IDF research may help you here. Alchemy and Ryte are two suggested tools but don't be too overly reliant on them).
- For example, if you are writing a review for *Avengers: Infinity War*, your page needs to include words like:
  - Marvel Studios
  - Marvel Comics
  - Comic Books
  - Iron Man
  - Captain America
  - Superheroes
  - Etc.
- While these keywords aren't directly related to our focus keyword, they help tell Google and readers what our page is about.



# 5. Semantic distance

- Some keywords may not really work in natural speech, but if you put them in the same sentence (or at least the very same paragraph) Google should still get what you're trying to say. However, distance plays a very big role in determining this.
- For example, in the example article below comes up if you search the keyword “Witcher 3 bad ending”, but the keywords aren't directly next to each other.

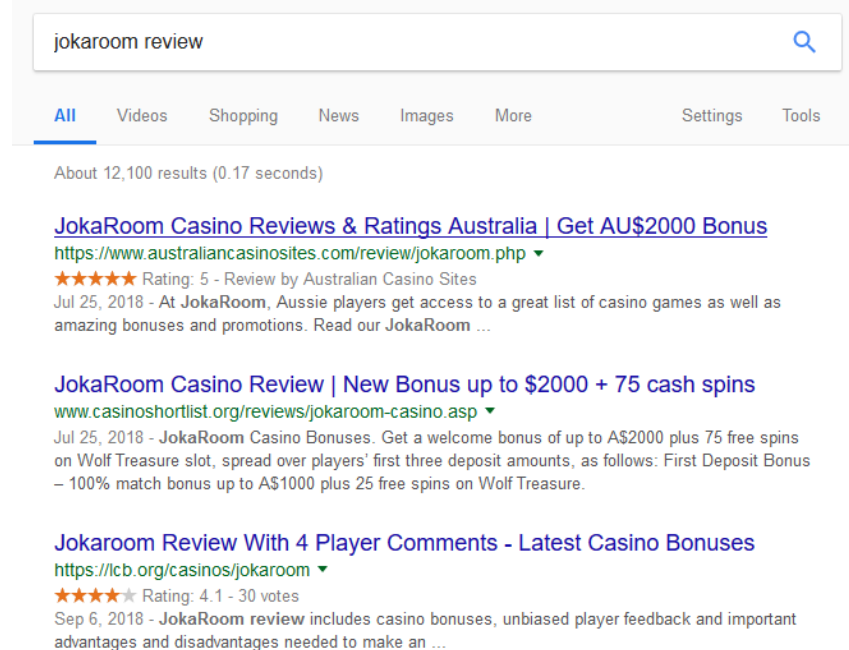
When discussing #TheWitcher3 with a group of #gamers, it almost seems inevitable that at least one person will mention that he/she received the bad #ending.

In such conversations, I've often heard it said that this individual had been enjoying the #game thinking that they had made all the right choices, but ultimately got the worst possible ending and didn't quite understand why.



# 6. Make use of structured data

- You need to make your content as easy to understand as possible. Structured data makes it easier for search engines to understand the purpose of a page and therefore its more likely to rank. (Research has shown that structured data can improve traffic by as much as 100%)



# 7. Effective In-Links

- Try to include links that may help the reader and search crawler understand what a particular concept is about. For example, in a news story about Russia, it would only make sense to place in-link tags on words like “Russia”, “Vladimir Putin”, etc.

Russia’s foreign ministry has accused **Ukraine** of coordinating with the US and the EU in a “planned provocation” aimed at securing further sanctions against Moscow, as tensions mount after a dangerous clash between the two countries.

As the UN security council prepared to meet later on Monday, Nato joined western calls for restraint after Russia **fired on and seized** three Ukrainian naval ships in the Kerch strait separating Crimea from the Russian mainland, wounding several seamen.

Kiev said the two small Ukrainian armoured artillery vessels and a tugboat, heading to Ukrainian ports in the Sea of Azov, were observing international maritime rules. Moscow said it had not been notified in advance of the flotilla’s passage and the boats ignored warnings to stop.

In a statement accusing Ukraine of deliberately provoking the incident to provide a pretext for further anti-Russian sanctions, the foreign ministry in Moscow said **Russia** would respond harshly to any attempts to undermine its sovereignty and security.



# Sources

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