

# **Bag-Of-Words**

...  
...Catch up? [Inbox](#)[Compose](#)**Kirill Eremenko**

6:18 pm ...

**K**

to me

Hello Kirill,

Checking if you are back to Oz. Let me know if you are around and keen to sync on how things are going. I defo could use some of your creative thinking to help with mine :)

Cheers,

V  
\*\*\***Yes, I'm around.****I'm back!****Sorry, I'm not.**[Reply](#)[Forward](#)

# Bag-Of-Words

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• •

Yes / No

# Bag-Of-Words

[0, ... , 0]



20.000 elements long

171,476 words

The Second Edition of the 20-volume Oxford English Dictionary contains full entries for 171,476 words in current use, and 47,156 obsolete words. To this may be added around 9,500 derivative words included as subentries.



How many words are there in the English language?

[https://en.oxforddictionaries.com/\\_/how-many-words-are-there-in-the-english-language](https://en.oxforddictionaries.com/_/how-many-words-are-there-in-the-english-language)

About this result | Feedback

People also ask

How many words in the English language does the average person know?

Most adult native test-takers range from 20,000–35,000 words. Average native test-takers of age 8 already know 10,000 words. Average native test-takers of age 4 already know 5,000 words. Adult native test-takers learn almost 1 new word a day until middle age. May 29, 2013

Lexical facts - The Economist

<https://www.economist.com/blogs/johnson/2013/05/vocabulary-size>

Search for: How many words in the English language does the average person know?

How many words are there in all the languages in the world?

Which language has the most words in the world?

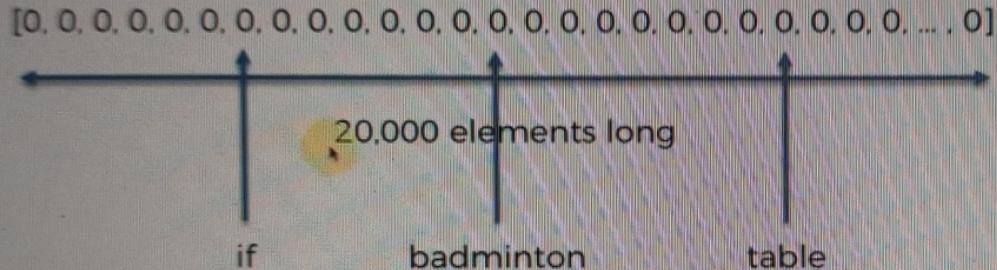
How many words are there in the Spanish language?

How many words does Eminem say in a minute?

How many pages is 100 000 words?



# Bag-Of-Words



171,476 words

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How many words are there in the English language?

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We have seen that the Oxford English Dictionary contains 171,476 words in current use, whereas a vocabulary of just 3000 words provides coverage for around 95% of common texts. If you do the math, that's 1.75% of the total number of words in use! Mar 14, 2013

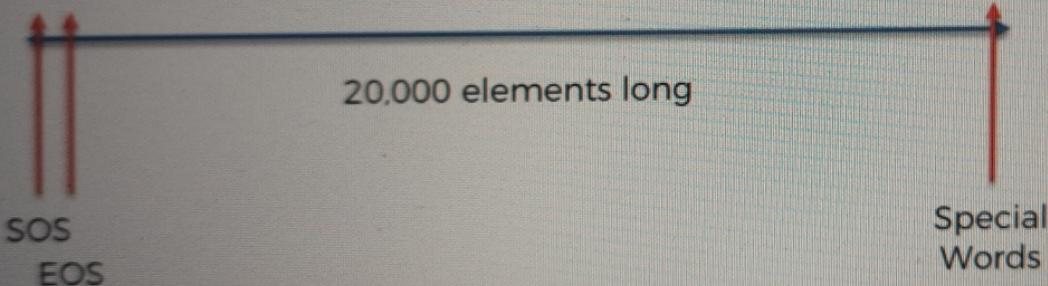


How many words in the english language ? How many do i need to ...

<https://www.ingholic.com/how-many-words-do-i-need-to-know-the-955-rule-in-langu...>

# Bag-Of-Words

[0, ..., 0]



# Bag-Of-Words

Hello Kirill, Checking if you are back to Oz. Let me know if you are around ... Cheers, V

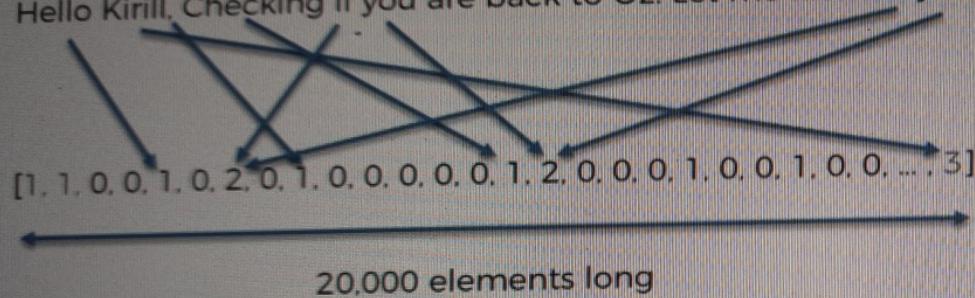
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20,000 elements long

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[1, 1, 0, 0, 1, 0, 2, 0, 1, 0, 0, 0, 0, 1, 2, 0, 0, 0, 1, 0, 0, 1, 0, 0, ..., 3]

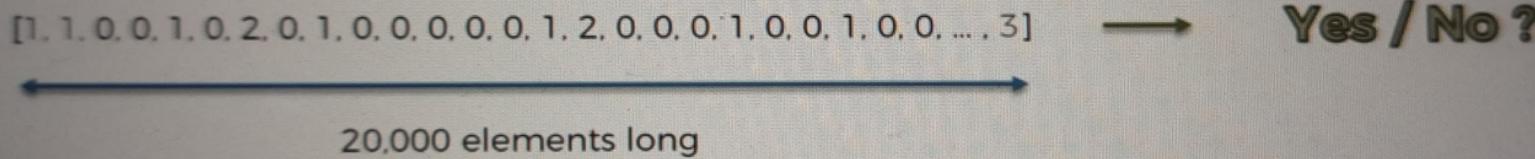


**Yes / No ?**

←—————→  
20,000 elements long

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## Training Data:

Hey mate, have you read about Hinton's capsule networks?



No

Did you like that recipe I sent you last week?



Yes

Hi Kirill, are you coming to dinner tonight?



Yes

Dear Kirill, would you like to service your car with us again?



No

Are you coming to Australia in December?

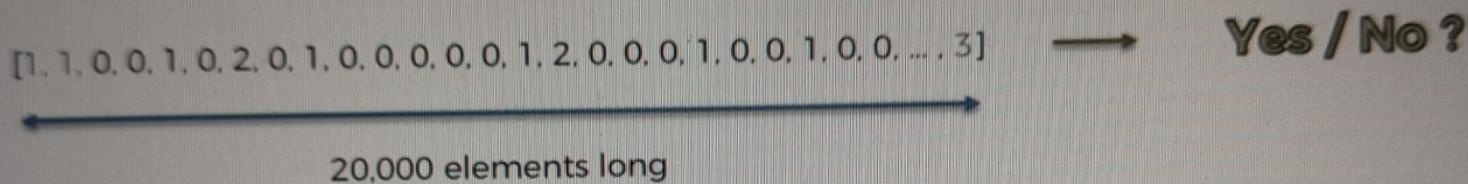


Yes

...

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Training Data:

[1, 1, 0, 0, 0, 1, 0, 0, 1, 1, 0, 0, 0, 0, 0, 1, 0, 1, 0, 1, 0, 0, 1, 0, 0, ..., 2]	→	No
[1, 1, 0, 0, 0, 0, 1, 0, 0, 0, 0, 0, 0, 0, 2, 0, 0, 0, 1, 0, 0, 1, 0, 0, ..., 0]	→	Yes
[1, 1, 0, 0, 0, 0, 0, 1, 0, 0, 1, 0, 0, 0, 0, 1, 0, 0, 0, 1, 0, 0, 0, 1, ..., 1]	→	Yes
[1, 1, 0, 0, 0, 0, 0, 1, 0, 0, 1, 0, 0, 0, 0, 1, 1, 0, 1, 0, 0, 0, 0, 0, 0, ..., 1]	→	No
[1, 1, 0, 0, 0, 0, 0, 0, 1, 0, 0, 0, 0, 0, 0, 1, 0, 0, 1, 1, 0, 0, 0, 1, 0, ..., 1]	→	Yes
...	→	...

# Bag-Of-Words

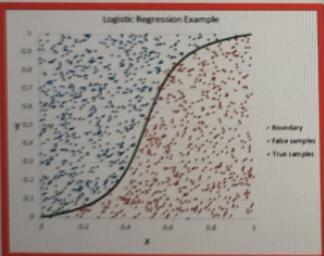
Hello Kirill, Checking if you are back to Oz. Let me know if you are around ... Cheers, V

[1, 1, 0, 0, 1, 0, 2, 0, 1, 0, 0, 0, 0, 1, 2, 0, 0, 0, 1, 0, 0, 1, 0, 0, ..., 3] → Yes / No ?

↔ 20,000 elements long

Training Data:

[1, 1, 0, 0,



[1, 1, 0, 0,

[1, 1, 0, 0,

[1, 1, 0, 0,

[1, 1, 0, 0,

0, 0, 1, 0, 1, 0, 1, 0, 0, 1, 0, 0, ..., 2] →

0, 0, 2, 0, 0, 0, 1, 0, 0, 1, 0, 0, ..., 0] →

0, 0, 1, 0, 0, 0, 1, 0, 0, 0, 0, 1, ..., 1] →

0, 0, 1, 1, 0, 1, 0, 0, 0, 0, 0, 0, ..., 1] →

0, 0, 1, 0, 0, 1, 1, 0, 0, 0, 1, 0, ..., 1] →

No

Yes

Yes

No

Yes

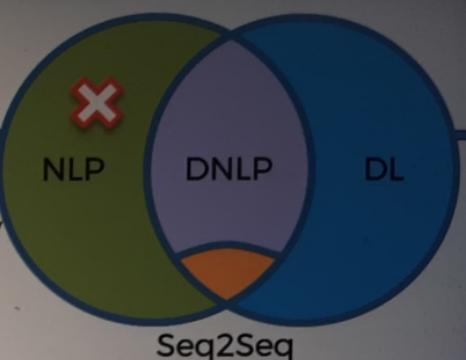
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instance.

...

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Hello Kirill, Checking if you are back to Oz. Let me know if you are around ... Cheers, V



[1, 1, 0, 0, 1, 0, 2, 0, 1, 0, 0, 0, 0, 0, 1, 2, 0, 0, 0, 1, 0, 0, 1, 0, 0, ..., 3] → Yes / No ?

←→ 20,000 elements long

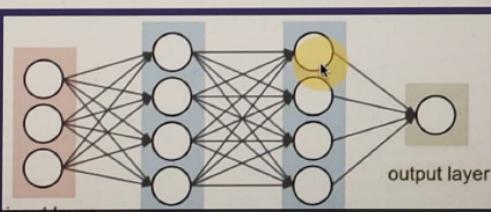
Yes / No ?

Training Data:

[1, 1, 0, 0,  
[1, 1, 0, 0,  
[1, 1, 0, 0,  
[1, 1, 0, 0,  
[1, 1, 0, 0,



0, 0, 1, 0, 1  
0, 0, 2, 0, 0  
0, 0, 1, 0, 0  
0, 0, 1, 1, 0



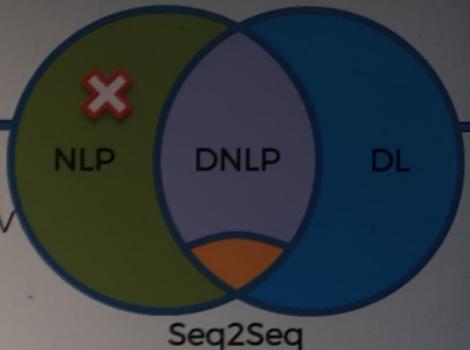
No  
Yes  
Yes  
No

Image Source: [www.helloachm.com](http://www.helloachm.com)

They would go through one hidden layer to analyze Azmy Hitler's  
as we want our own decision on how to

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[1, 1, 0, 0, 1, 0, 2, 0, 1, 0, 0, 0, 0, 1, 2, 0, 0, 0, 1, 0, 0, 1, 0, 0, ..., 3] → Yes / No ?  
← 20,000 elements long

Training Data:

[1, 1, 0, 0,  
[1, 1, 0, 0,  
[1, 1, 0, 0,  
[1, 1, 0, 0,  
[1, 1, 0, 0,

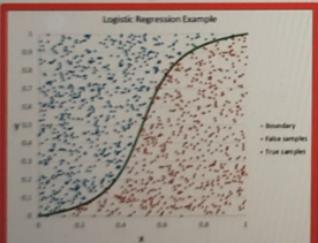
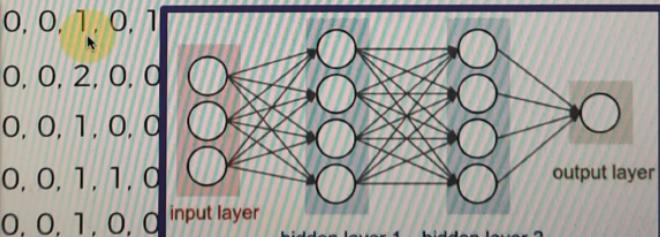


Image Source: [www.helloacm.com](http://www.helloacm.com)

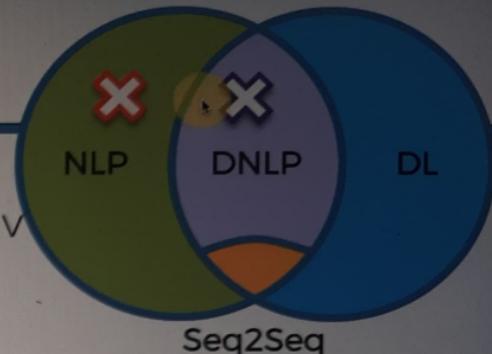


No  
Yes  
Yes  
No  
Yes  
...

of emails and responses.

# Bag-Of-Words

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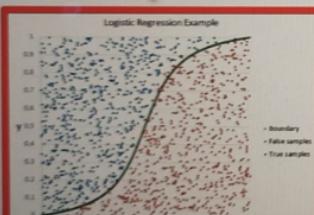
[1, 1, 0, 0, 1, 0, 2, 0, 1, 0, 0, 0, 0, 1, 2, 0, 0, 0, 1, 0, 0, 1, 0, 0, ..., 3]

20,000 elements long

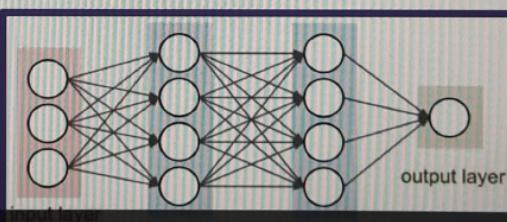
→ Yes / No ?

Training Data:

[1, 1, 0, 0,  
[1, 1, 0, 0,  
[1, 1, 0, 0,  
[1, 1, 0, 0,  
[1, 1, 0, 0,



0, 0, 1, 0, 1  
0, 0, 2, 0, 0  
0, 0, 1, 0, 0  
0, 0, 1, 1, 0



No  
Yes  
Yes  
No

Image Source: [www.helloacm.com](http://www.helloacm.com)

So in both cases, the bag of words model in one case is in an LP  
bag go Gabor's, in other cases a