

# Could AI Prevent a Corporate Scandal?



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**We cannot teach a machine:**  
**“Avoid a scandal”**



**We need to  
be  
specific...**

## **EU Competition Law states:**

“It’s prohibited to directly or indirectly  
fix purchase or selling prices”

# Deutsche Bank pays \$220m over rate manipulation

US closes chapter on case after finding traders' joke messages: 'Who put the Lie in Libor?'



© Reuters

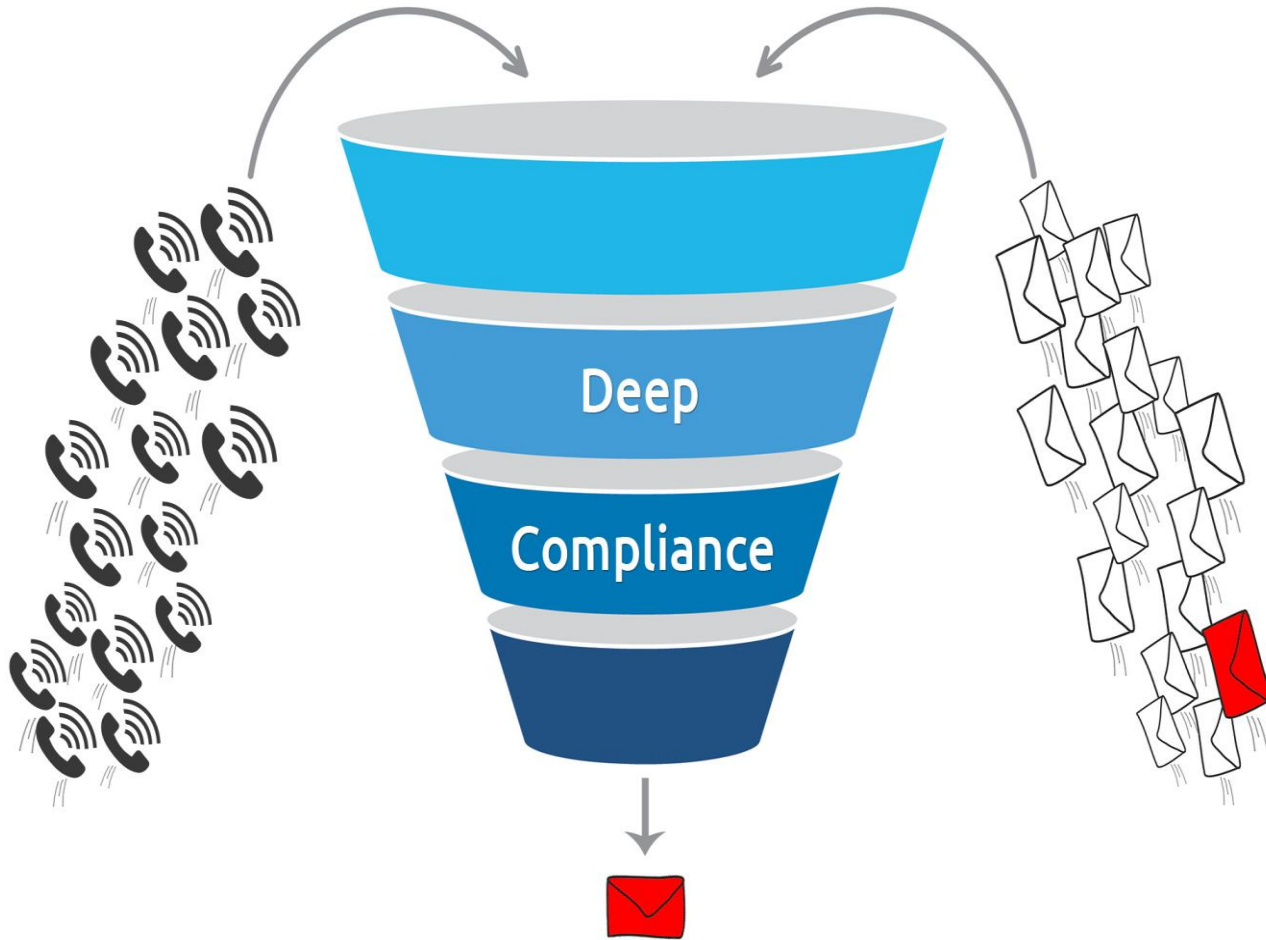
**...but what  
about  
WhatsApp?**







# Speech Recognition



**Why make the effort?**

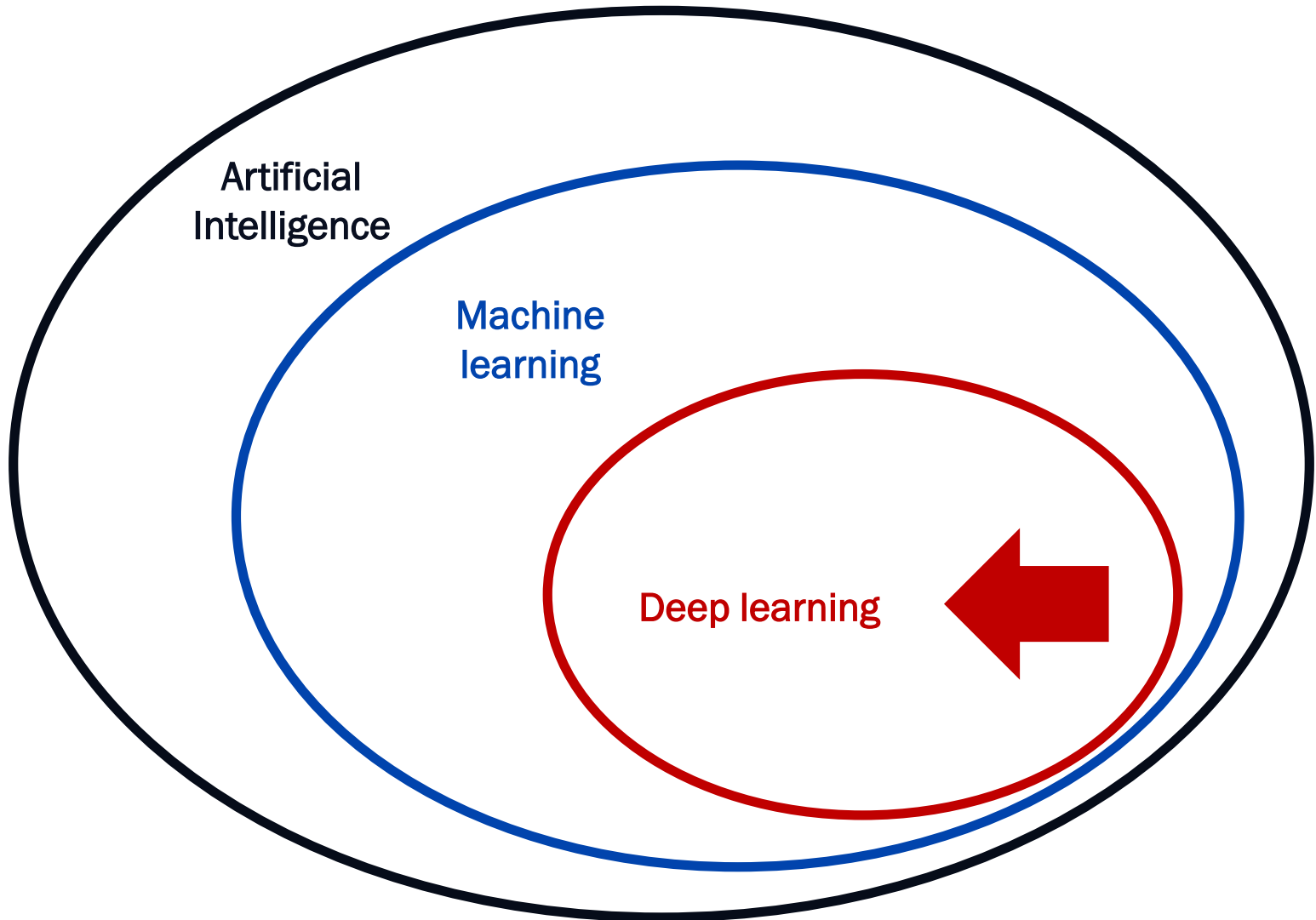


# **Text Classification**

**Is this email compliant?  
Yes? No?**

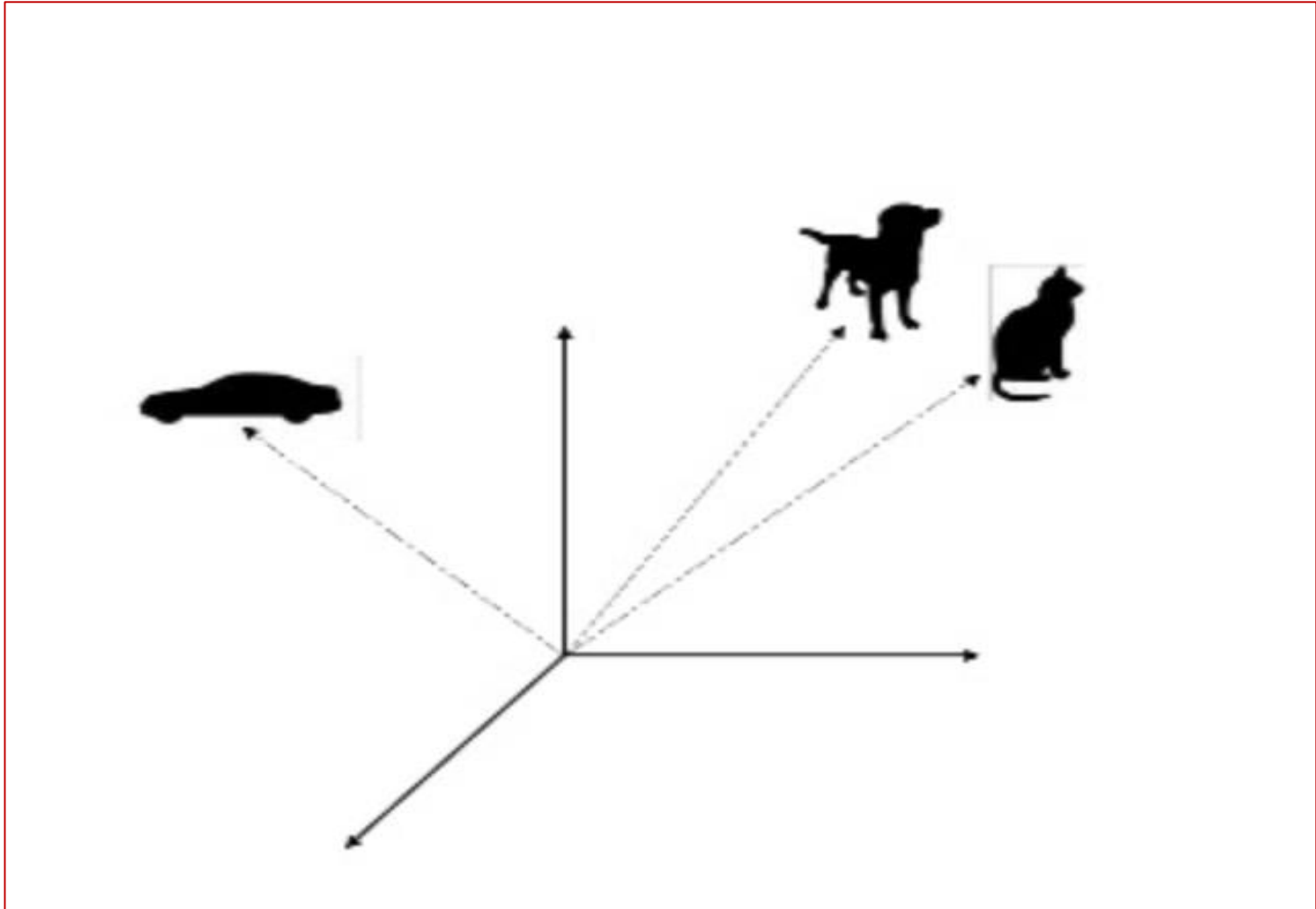
# **Deep Learning for Natural Language Processing**

# Where are we?



**Word Embedding**  
**+**  
**Computer Vision**  
**=**  
**Text Classification**

# Word Embedding:






## Cosine Similarity

```
In [1]: from gensim.models import KeyedVectors
# load the google word2vec model
filename = 'wiki-news-300d-1M-subword.vec'
model = KeyedVectors.load_word2vec_format(filename, binary=False)
```


```
In [2]: model.similarity('cat', 'dog')
```

```
Out[2]: 0.7502321566434479
```



```
In [3]: model.similarity('cat', 'car')
```

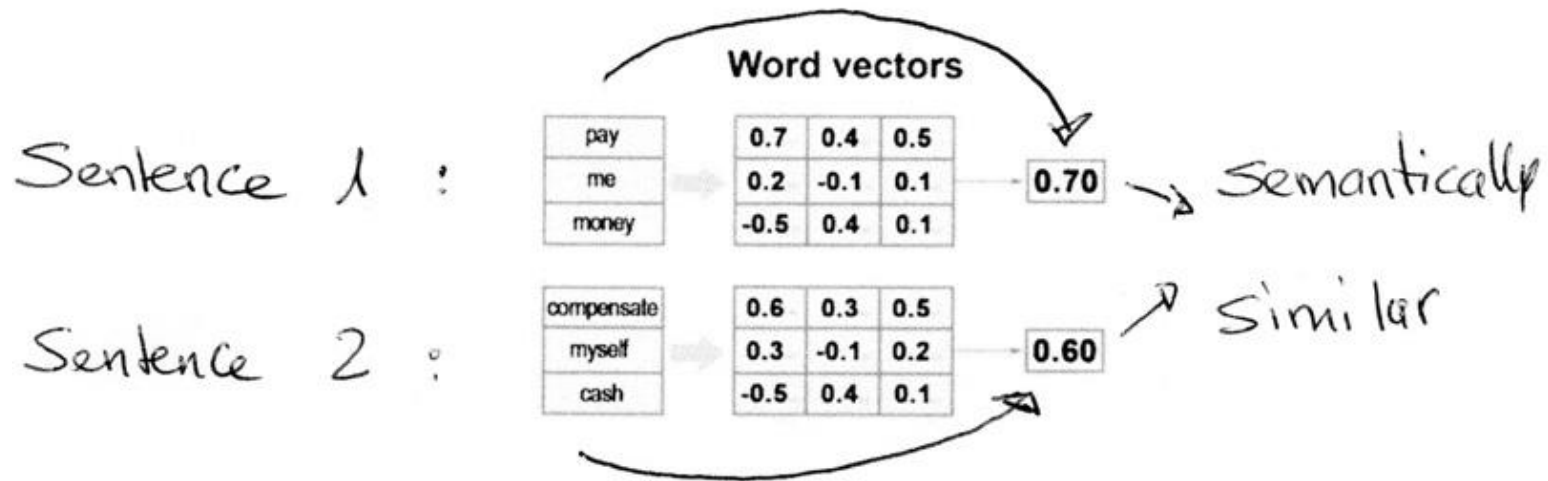
```
Out[3]: 0.3838289718860277
```



```
In [ ]:
```

```
In [ ]:
```

# Computer Vision for NLP:



# “Teaching” a machine competition law:



The image illustrates the concept of "teaching" a machine competition law. A blue book titled "competition law OF THE EU AND UK" by SANDRA MARCO COLINO is shown floating above a spreadsheet. A large black arrow points from the book towards the spreadsheet. The spreadsheet contains a list of competition law rules with a score column and a feedback column with checkmarks, crosses, and a greyed-out button.

	A		
1			
2			
3			
4			
5	0	The term cartel is generally used to describe an informal association or arrangement involving two or more competing companies.	
6	0	EU competition law prohibits all forms of restrictive agreements and concerted practices between companies.	
7	1	Directly or indirectly fix purchase or selling prices.	
8	1	Limit or control production, markets, technical development or investment.	
9	1	Apply dissimilar conditions to equivalent transactions with other trading parties.	
10	1	Share markets or source of supply.	
11	1	Make the conclusion of contracts conditional on acceptance of unrelated obligations.	

For rigging today's closing price of BAYN GR at EUR 90.75, I'll pay you 25% of the profits in Ethereum.



**“Deep Learning is a  
breakout success because  
it adds enormous value to  
businesses.”**

**Thank you.**