

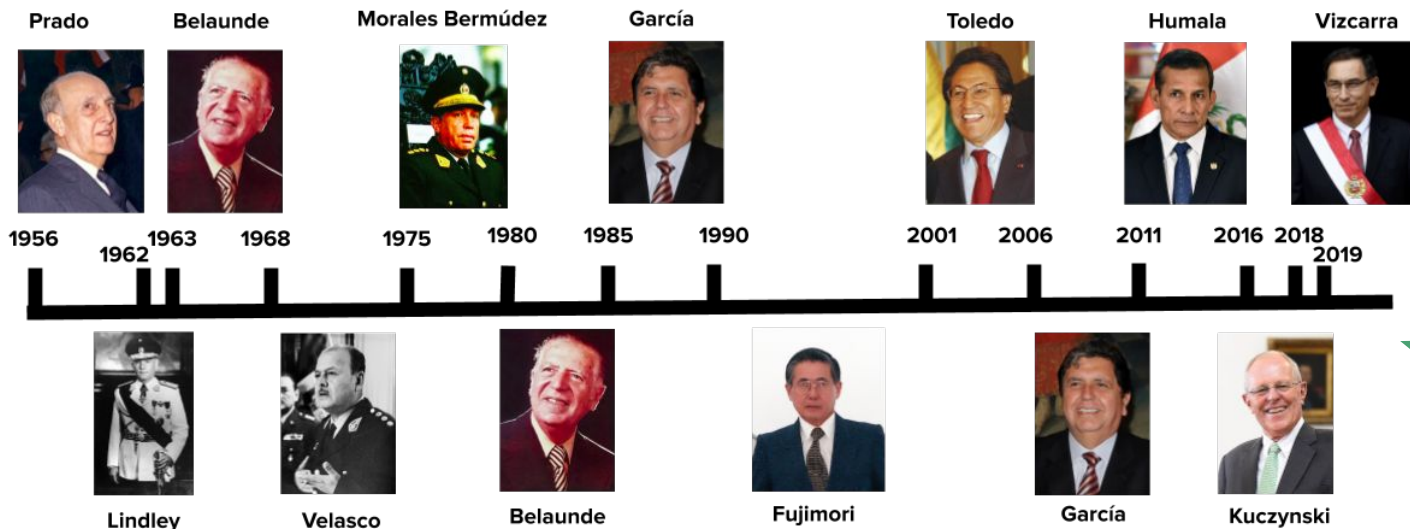
An exploratory content analysis of the presidential speeches of Peru, 1956-2019

By Carla Solis and Luis Eduardo San Martin



Quick comment on our **corpora**

- Speeches from 1956-2019 (64 in total, one per year), 13 administrations, 11 presidents.
- Average number of words per speech: 4,000+
- Average number of unique words per speech: 1,580
- Language: Spanish



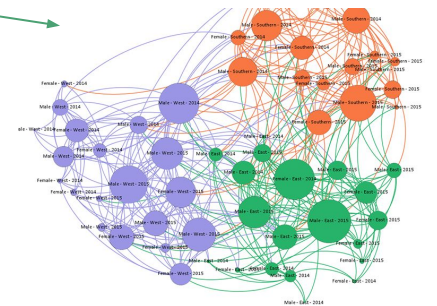
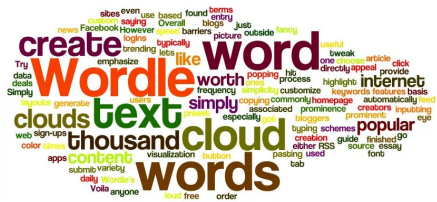
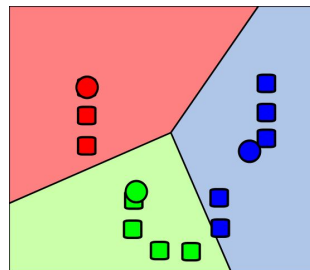
All pictures from their
Wikipedia pages in
Spanish

Overview of methods

- **Key question:** Does an exploratory content analysis of the presidential speeches of Peru during 1056-2019 go in line with the analysis and work of political scientists about Peru?
- Will use:
 - Counting words and phrases
 - Network analysis
 - Clustering
 - Doc embeddings

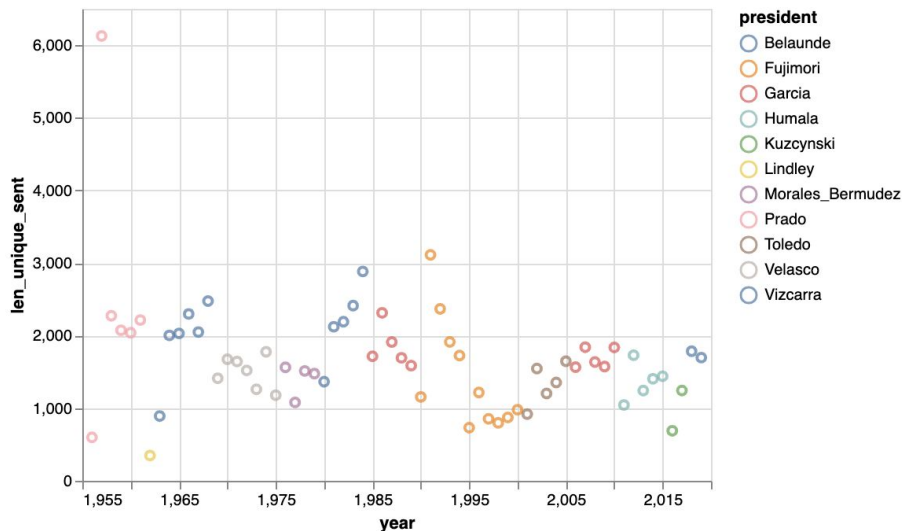


	1	2	3	4	5	6	7	8	9
man	1	0	0	0	0	0	0	0	0
woman	0	1	0	0	0	0	0	0	0
boy	0	0	1	0	0	0	0	0	0
girl	0	0	0	1	0	0	0	0	0
prince	0	0	0	0	1	0	0	0	0
princess	0	0	0	0	0	1	0	0	0
queen	0	0	0	0	0	0	1	0	0
king	0	0	0	0	0	0	0	1	0
monarch	0	0	0	0	0	0	0	0	1



Counting words and phrases

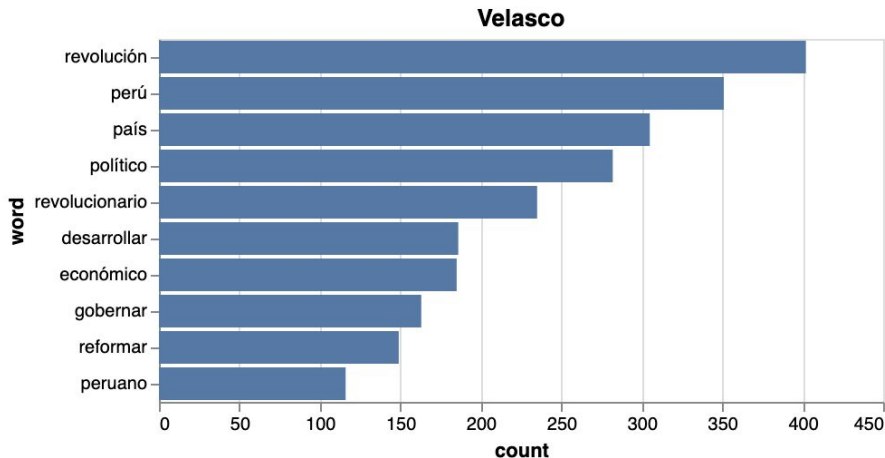
Common trends among all presidents: **año**, **pais** and **Peru**. **Gobernar** and **peruano** are also important



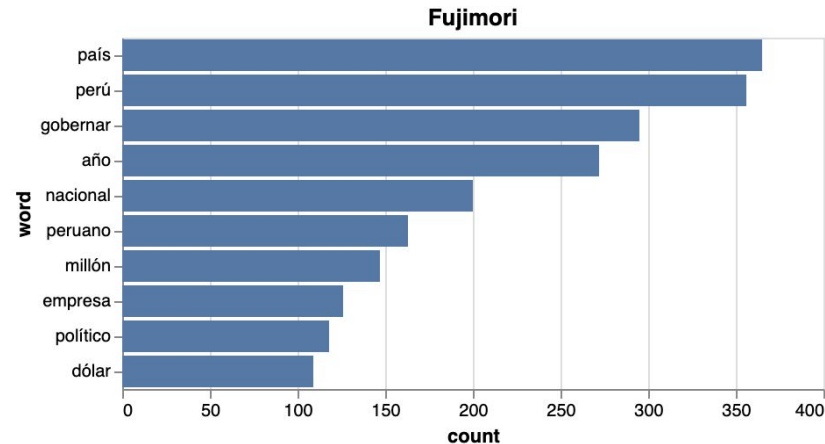
Counting the words



Counting words and phrases



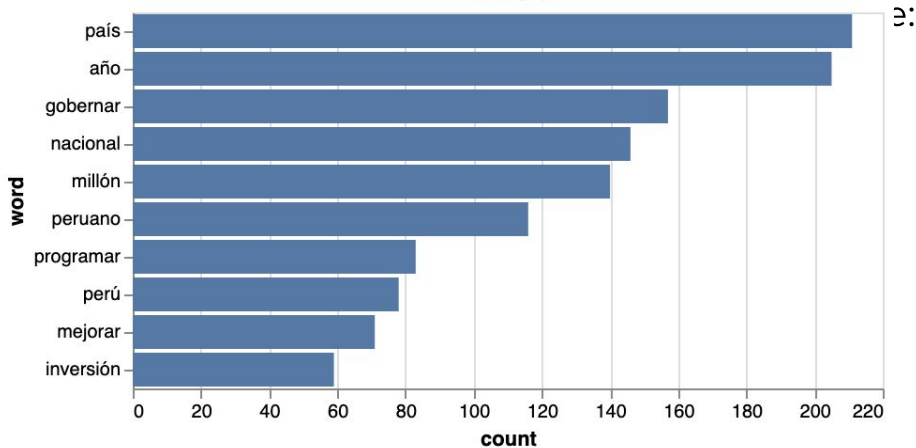
The language of a coup: **revolución, revolucionario, reformar, desarrollar**



The language of a new economic liberal model: **empresa, millon, dolar.**

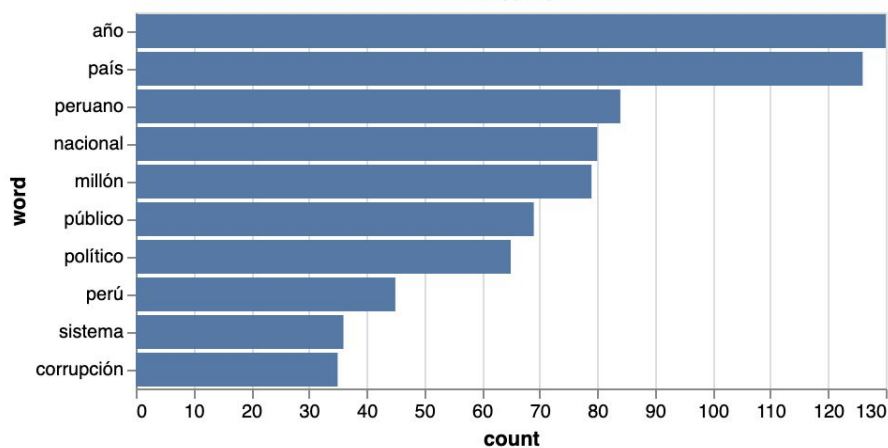
Counting words and phrases

Humala



A left-wing leader with a clear pro-market message: **millón, programar, inversión**

Vizcarra

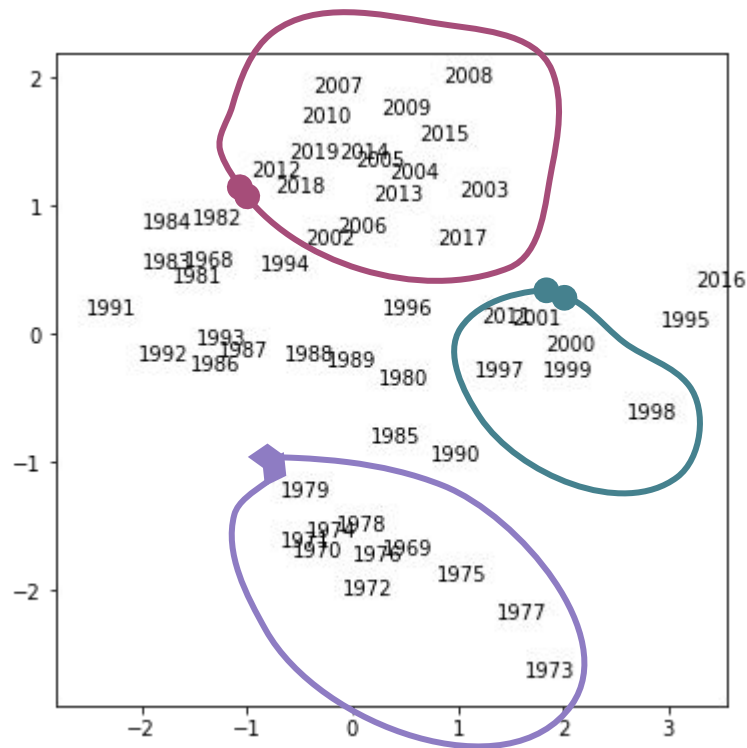


A leader who wasn't elected by people: **político, sistema, corrupción**

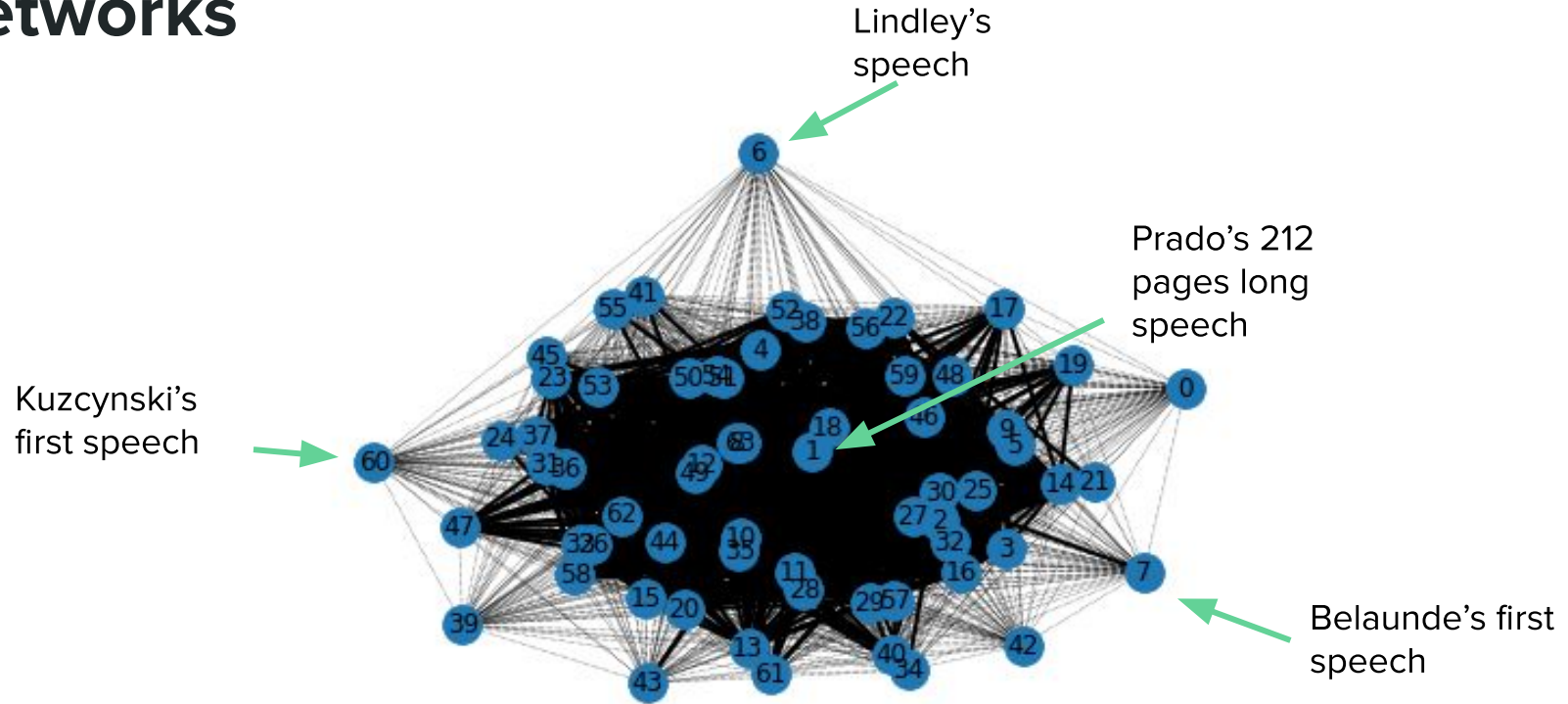
Counting words and phrases

We can see patterns that will be more evident with clustering:

1. The decade of the 70's group (military dictatorships).
2. The late 90's, beginning of 2000's
3. The whole 2000's

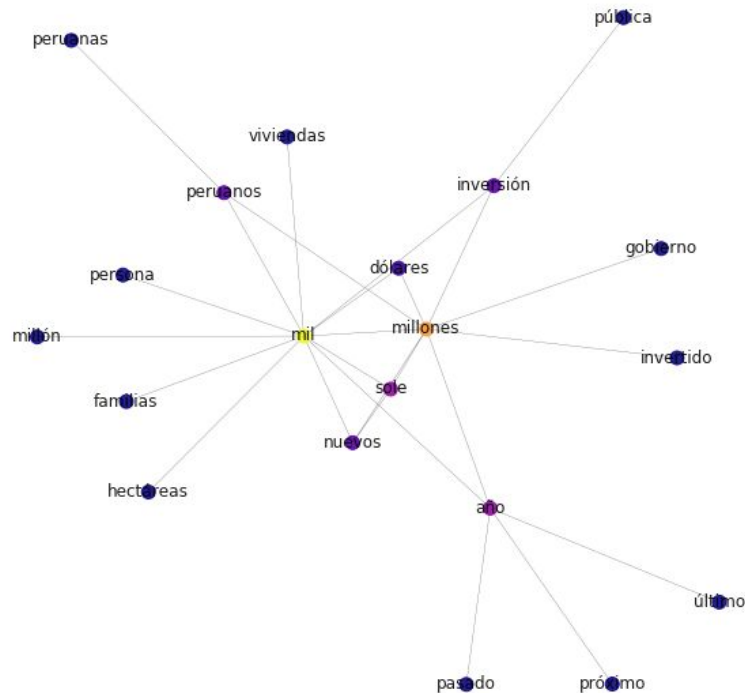


Networks



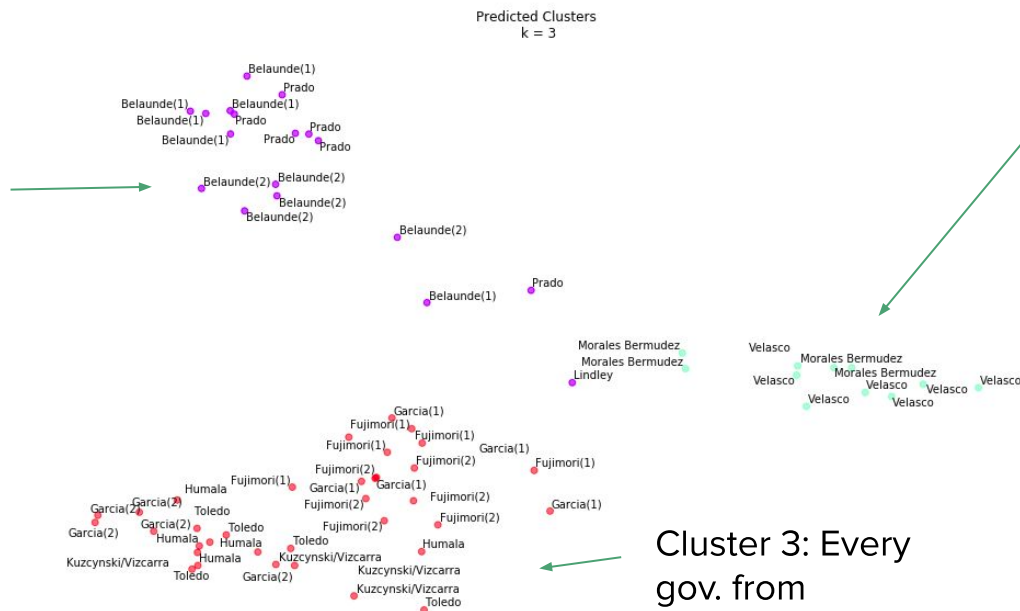
Networks

Similar result to what we saw with
counting words:
Key words in the speeches.



Clustering and Semantic Spaces in TF-IDF

Cluster 1: Every democratically elected gov. from 1956-1984, exc. for Lindley (military regime, took power with a coup)



Cluster 2: Every gov. that come to power through a military coup exc. for Lindley, almost all of them from the 1970s

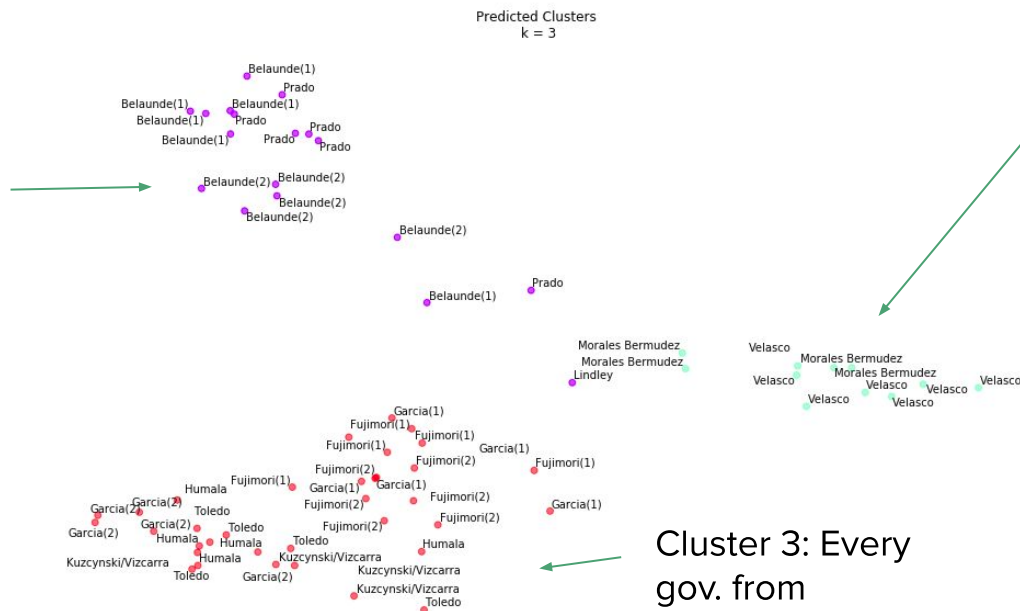


Cluster 3: Every gov. from 1985-2019, all were democratically elected



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Clustering and Semantic Spaces in TF-IDF

A closer look into the cluster of **military regimes**



Morales Bermudez
Morales Bermudez
Lindley

Velasco
Morales Bermudez
Morales Bermudez
Velasco
Velasco
Velasco
Velasco
Velasco



- Lindley's only speech (1962) located very close: makes sense because he was also an army general who took power by force.
- Morales Bermúdez (1976-1979) ousted Velasco's regime (1968-1975).
- Rhetorically, he claimed to continue with Velasco's reforms -- our results are in line with this.
- In practice, he mitigated the policies of his predecessor.

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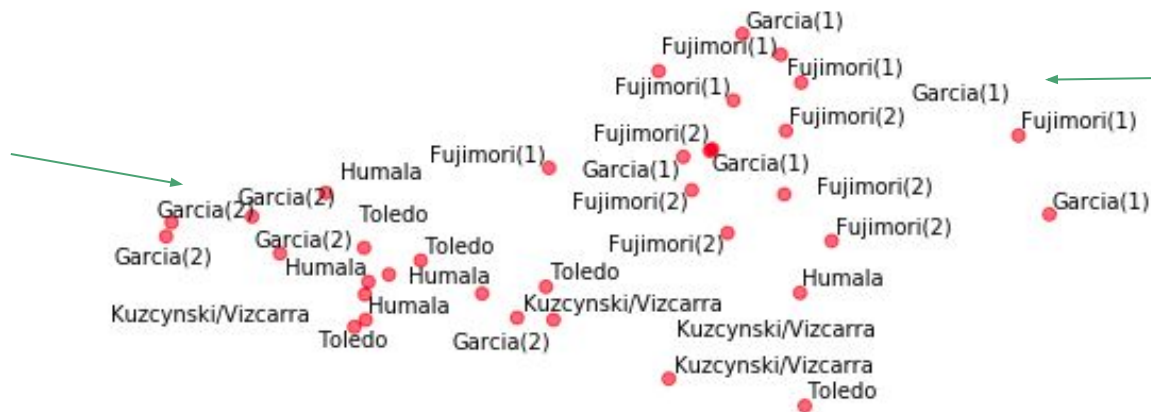


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Clustering and Semantic Spaces in TF-IDF

Comparing the semantic space of **García's two regimes**

García (2) is
around here



García (1) is
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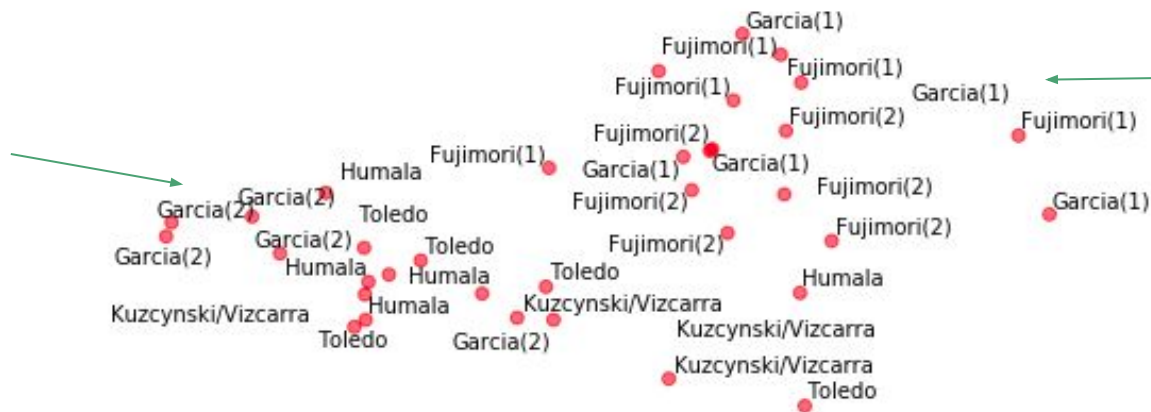


- García's two regimes: 1985-1990, 2006-2011.
- Each time, elected on very different platforms: vindication of the basic rights of the ultra poor and application of neoliberal economic policies.
- Our results highlight: García 1985-1990 \neq García 2006-2011

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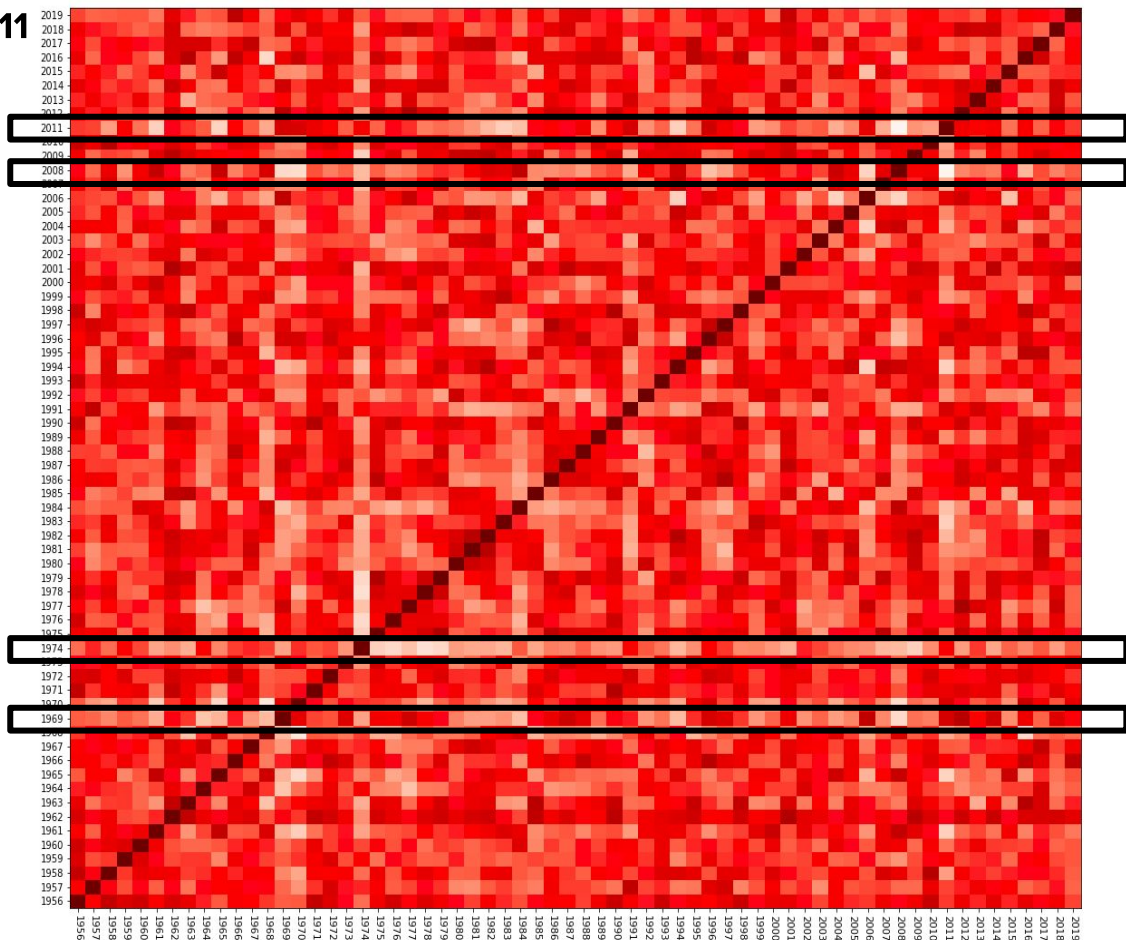
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Doc embeddings

- Doc2vec of each speech.
- Matrix shows speech-to-speech cosine similarity of result.
- Some speeches seem to be more distant to the rest

2008 and 2011

1969 and 1974



Semantic spaces in document embeddings

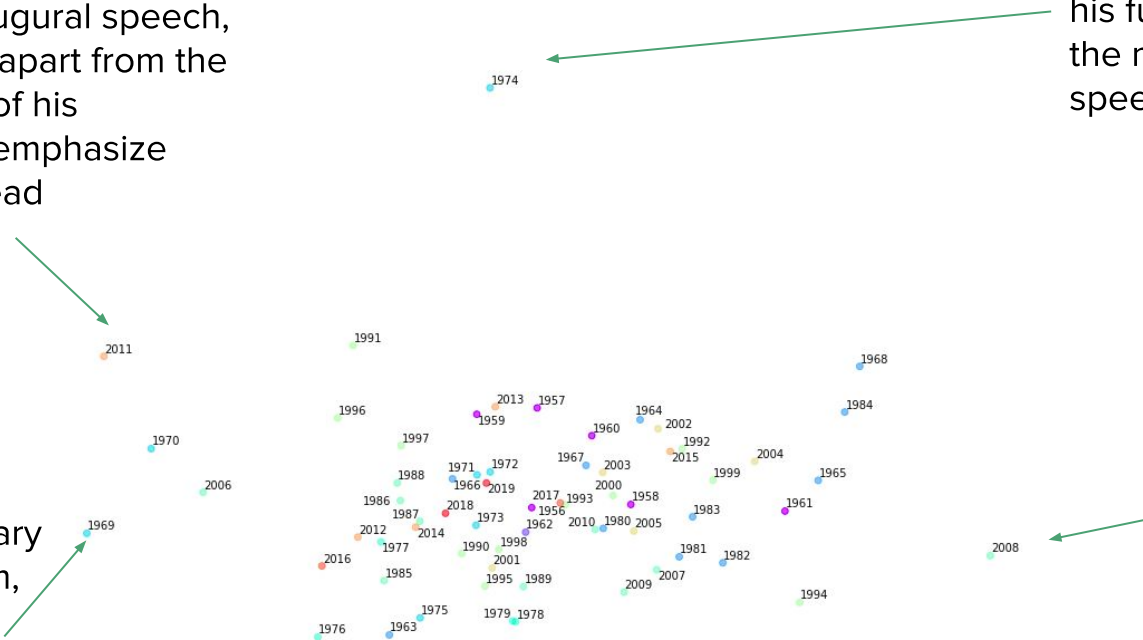
Why do some speeches stand out of the crowd?

2011: Humala's inaugural speech, tried to set himself apart from the economic policies of his predecessors and emphasize social policies instead

1974: Velasco happened to read his full gov. plan in the middle of the speech

1969: Velasco's military coup and land reform, both important milestones in Peru's political history

2008: Amidst the start of the Great Recession, García focused on the challenges ahead instead of the achievements of his administration, like almost every president does



Semantic spaces in document embeddings

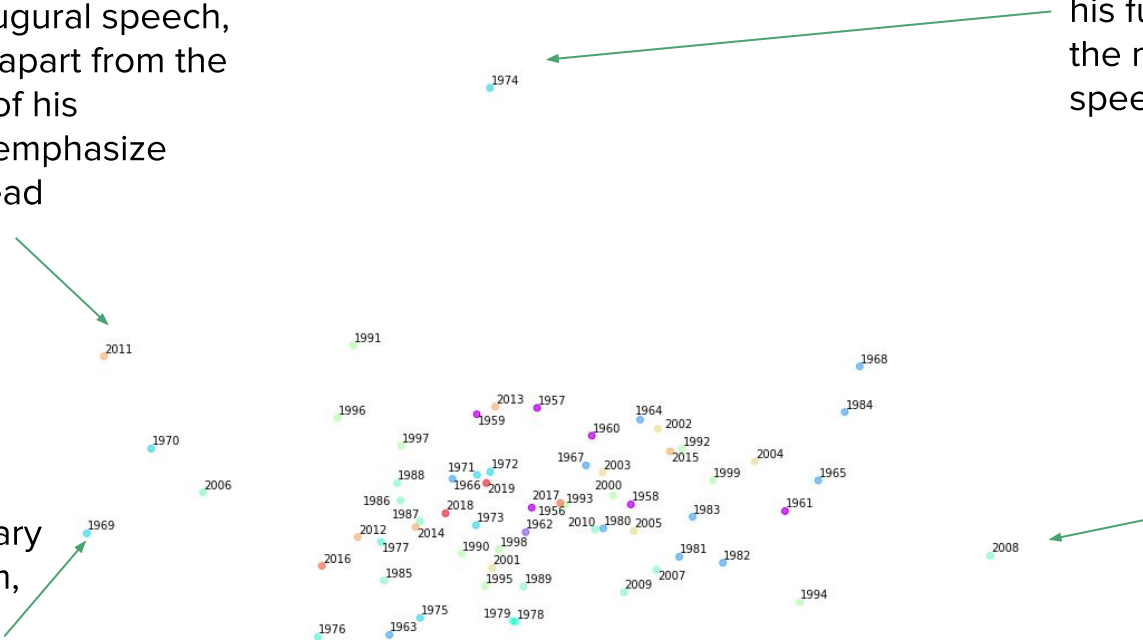
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Conclusions

- Apparently, there is a correlation between what political scientists have theorized about presidential history and what presidential speeches are telling us. For instance:
 - Velasco's military regime was unique in many ways, and his speeches were unique too.
 - García changed radically between 1985 and 2006, not only in his policies but also in discourse.
 - Policies and speeches from the administrations of 2001 onward look similar.
- Nevertheless, these results have to be observed carefully.
 - After all, this is an exploratory analysis.
 - To our best knowledge, there are no other computational content analyses of any political discourses of Peru.

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