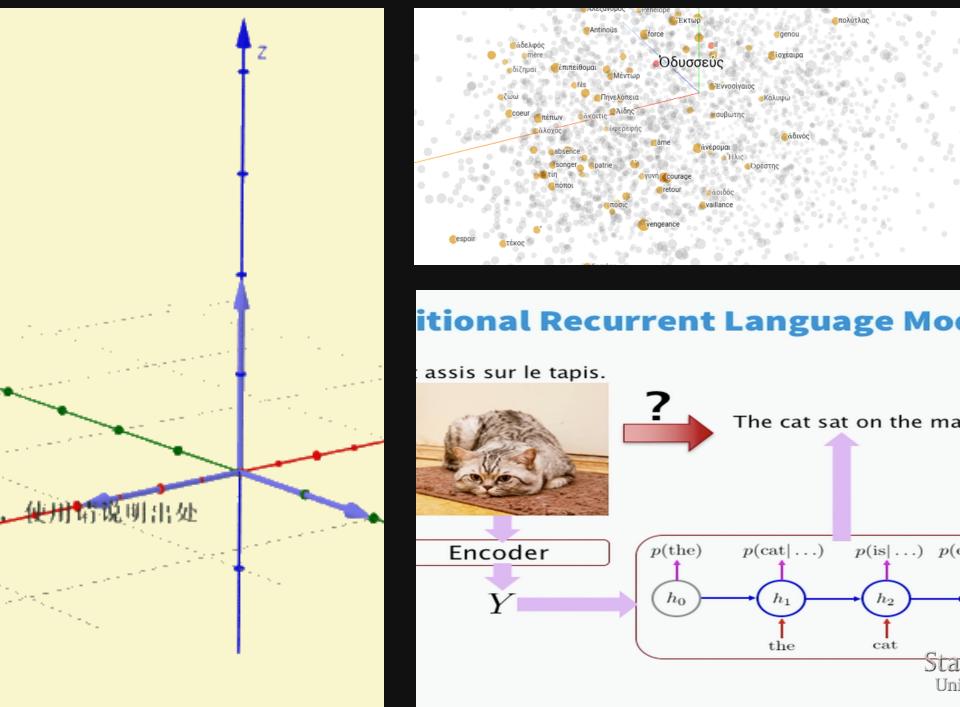
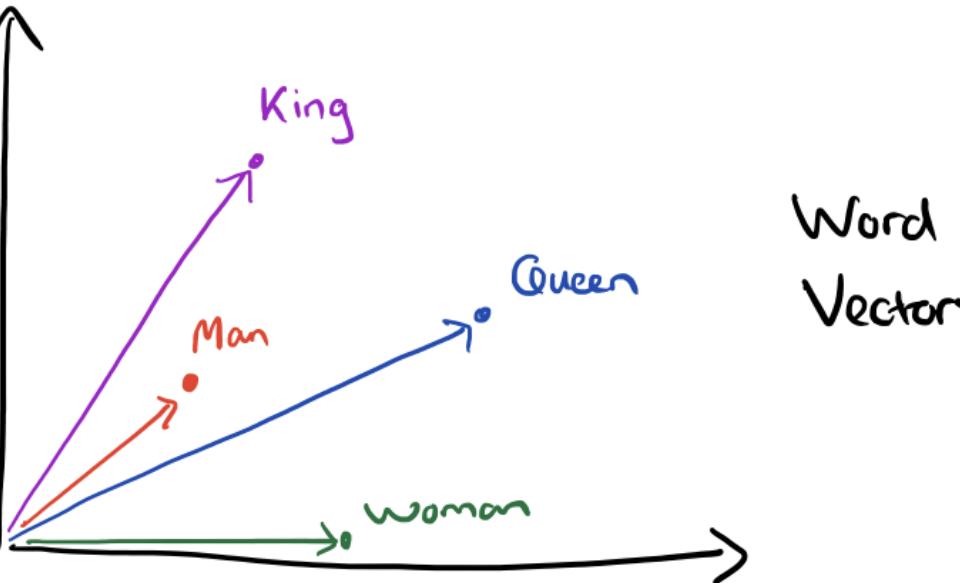


{ LLM & SHS }

Initiation



Rappel des bases

quelques rappels des fondements
des transformers

Rappel des bases 1 : les réseaux de neurones

vidéo explicative

Rappel des bases 2 : les embeddings

...government debt problems turning into banking crises as happened in 2009...

...saying that Europe needs unified banking regulation to replace the hodgepodge...

...India has just given its banking system a shot in the arm...

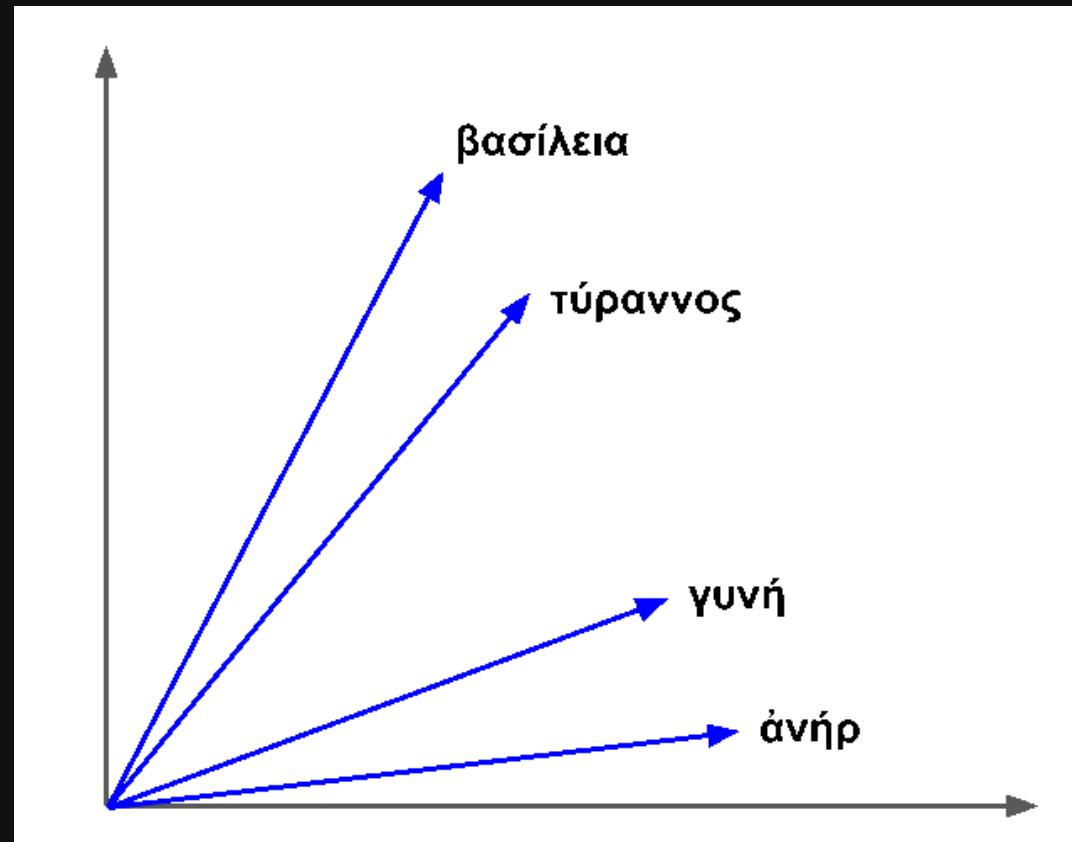


These context words will represent **banking**

“You shall know a word by the company it keeps”

(Firth, J. R. 1957:11)

Rappel des bases 2 : les embeddings

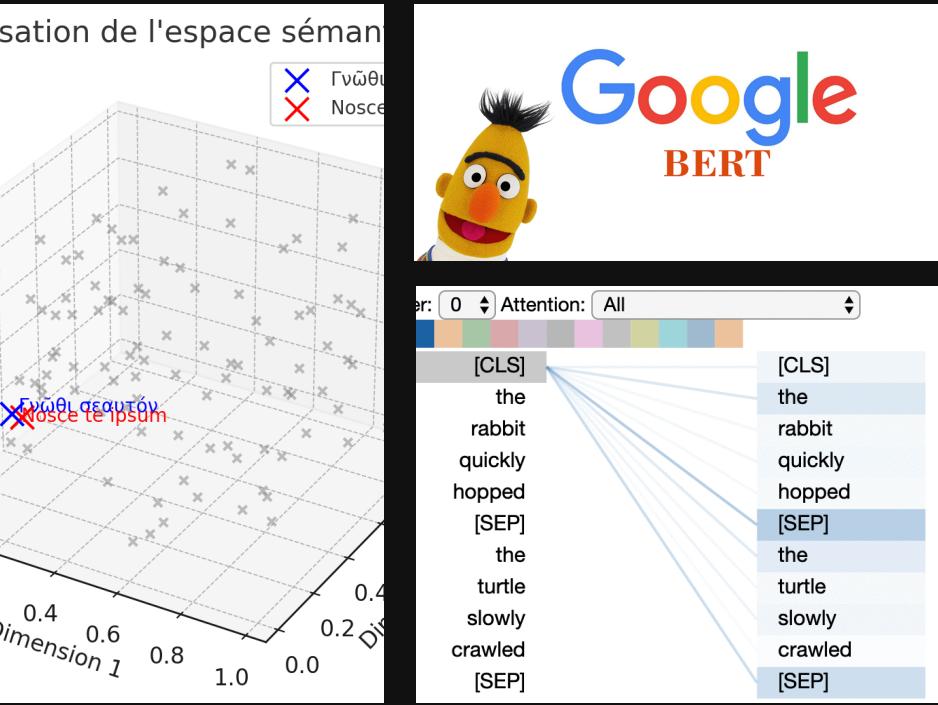




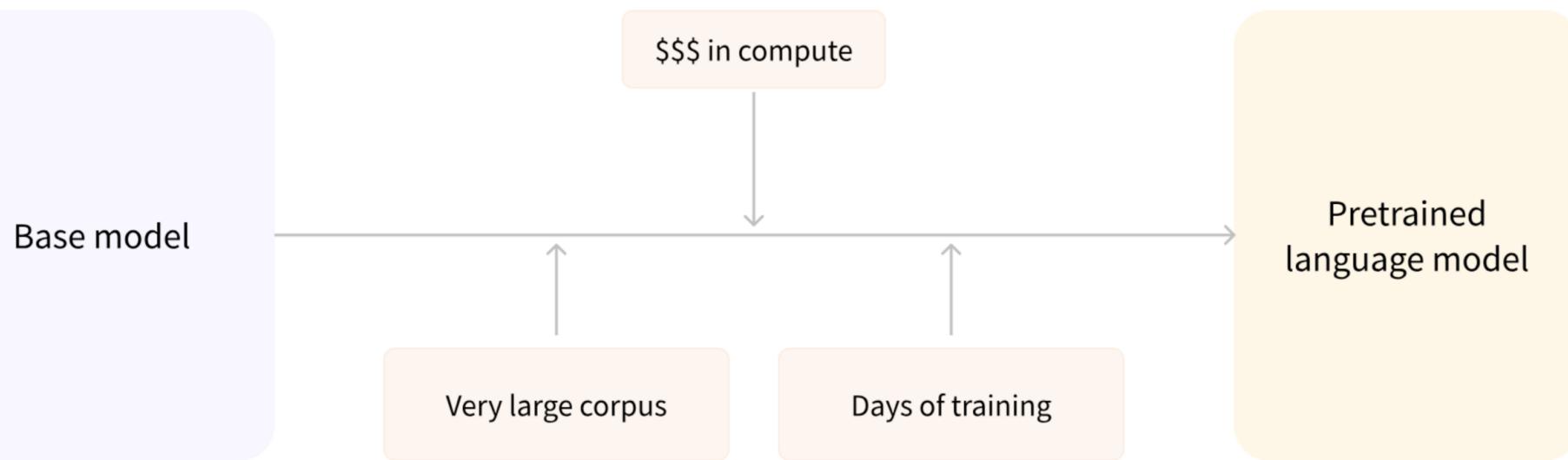
LES TRANSFORMERS

Principes des transformers

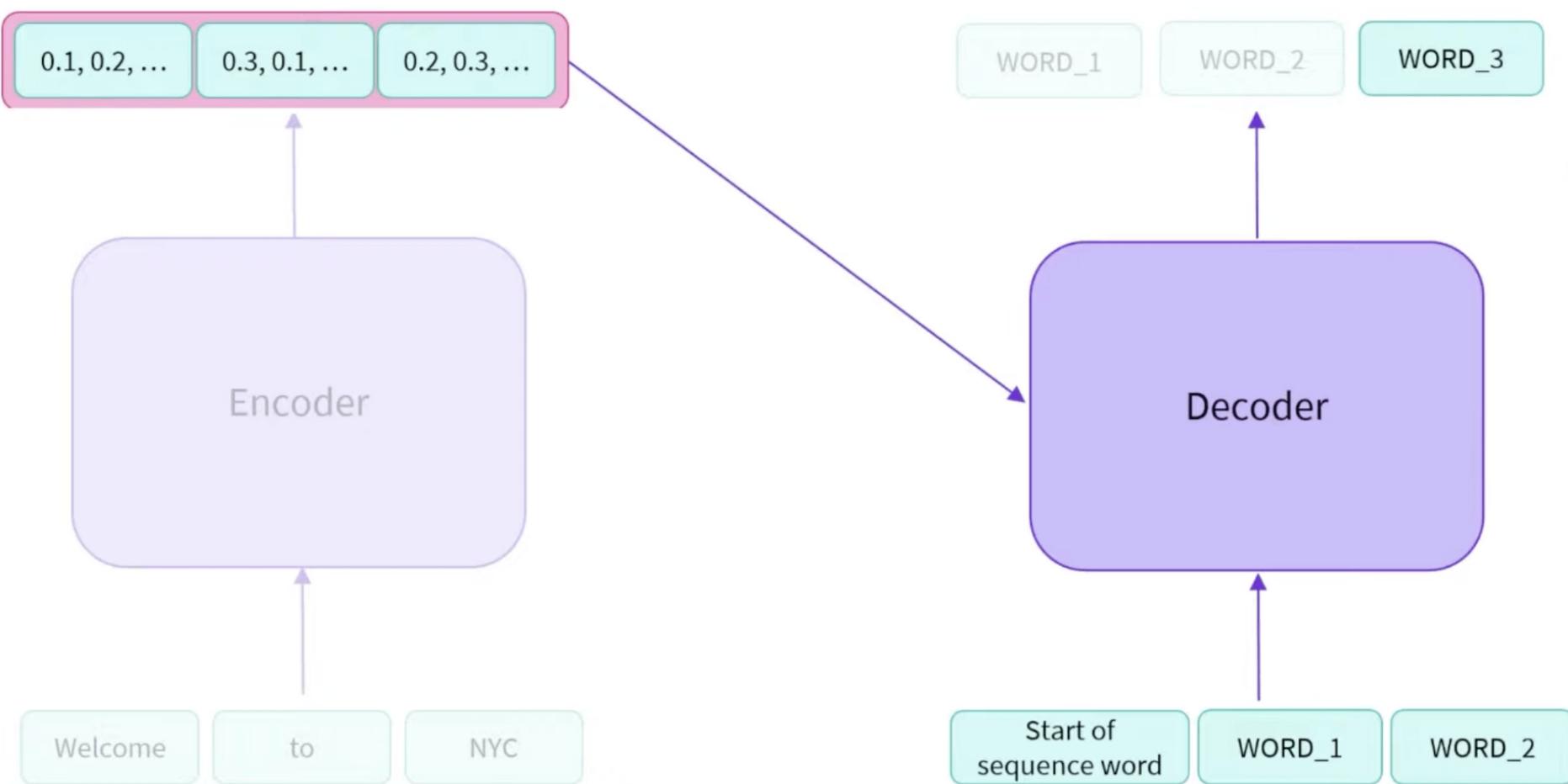
comment ils fonctionnent



Structure globale des transformers



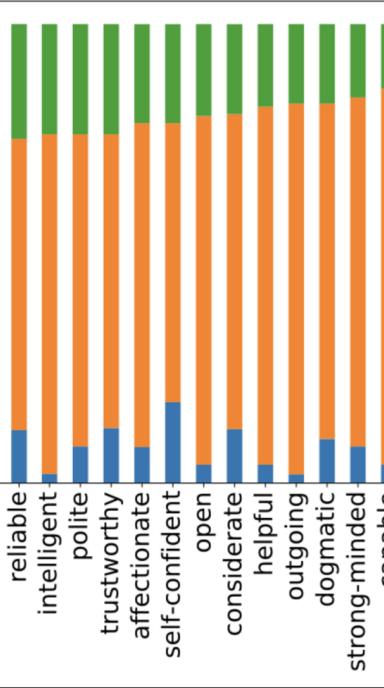
Structure globale des transformers



a teacher



a professor



India Colombia Mexico Russia Brazil

	India	Colombia	Mexico	Russia	Brazil
0.28	0.07	0.06	0.08	0.05	
0.32	0.34	0.22	0.3	0.29	
0.19	0.23	0.1	0.03	0.08	
0.36	0.31	0.25	0.26	0.31	
0.14	0.15	0.09	0.13	0.11	
0.3	0.23	0.15	0.16	0.19	
0.22	0.17	0.12	0.1	0.14	
0.27	0.11	0.1	0.06	0.08	

Les corpus et les biais

Pourquoi

Midjourney 1

a teacher



a professor



Midjourney 2

a doctor



a lawyer



DALLE et SD

"intelligent person"



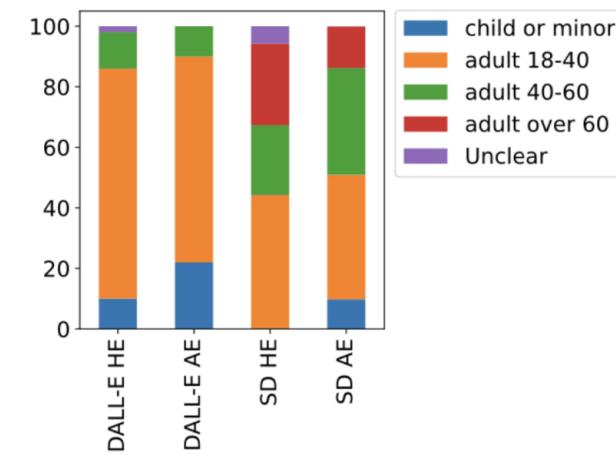
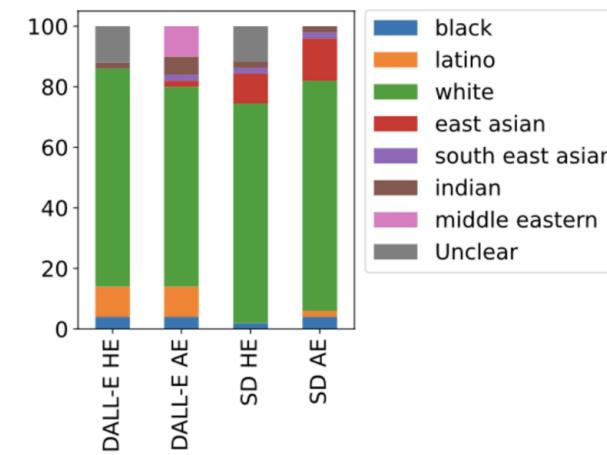
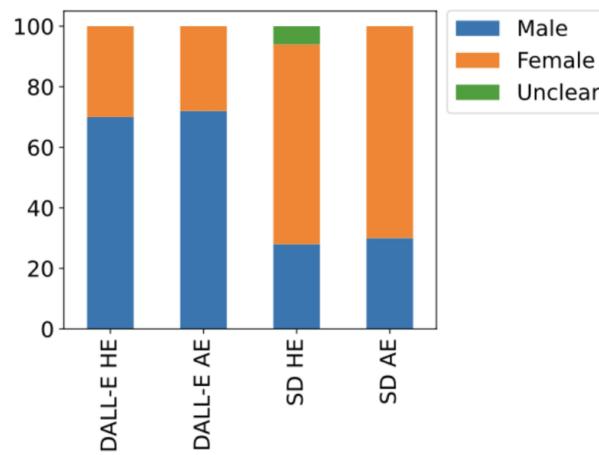
DALL-E



SD

DALLE et SD

"person"



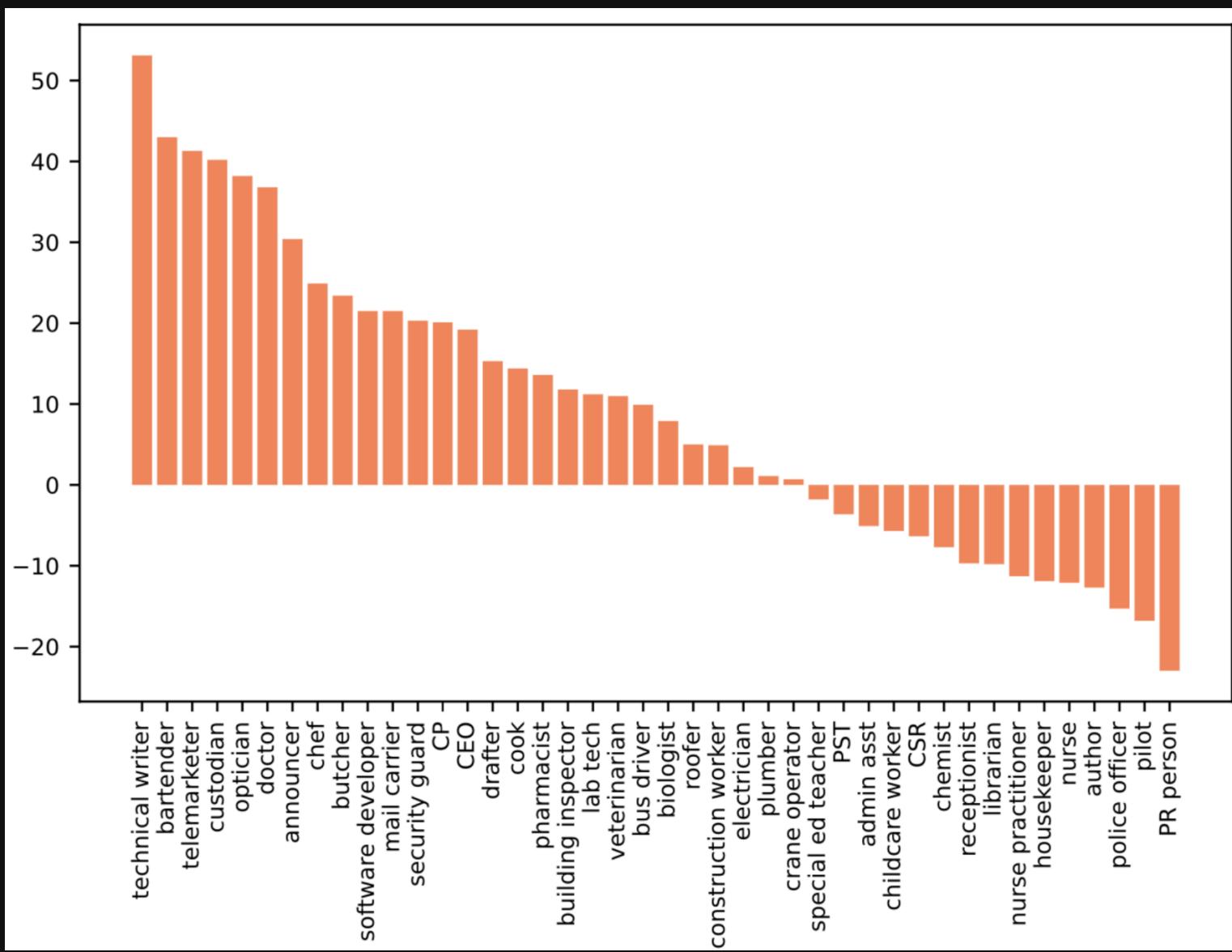
DALLE

events	Nigeria	Ethiopia	PNG	India	Colombia	Mexico	Russia	Brazil	China	Australia	Germany	USA
birthday party	0.05	0.11	0.11	0.04	0.01	0.02	0.03	0.03	0.02	0.03	0.03	0.08
celebration	0.26	0.4	0.38	0.2	0.18	0.2	0.17	0.14	0.19	0.17	0.17	0.22
concert	0.16	0.18	0.22	0.06	0.05	0.05	0.01	0.02	0.05	0.04	0.03	0.03
demonstration	0.29	0.25	0.24	0.19	0.22	0.17	0.16	0.19	0.19	0.08	0.04	0.08
festival	0.24	0.25	0.22	0.09	0.08	0.06	0.04	0.03	0.03	0.13	0.09	0.07
protest	0.26	0.27	0.22	0.11	0.16	0.14	0.16	0.14	0.16	0.05	0.06	0.02
riot	0.24	0.22	0.26	0.12	0.17	0.16	0.16	0.16	0.14	0.12	0.17	0.16
wedding	0.18	0.21	0.2	0.14	0.05	0.11	0.03	0.03	0.07	0.06	0.03	0.02

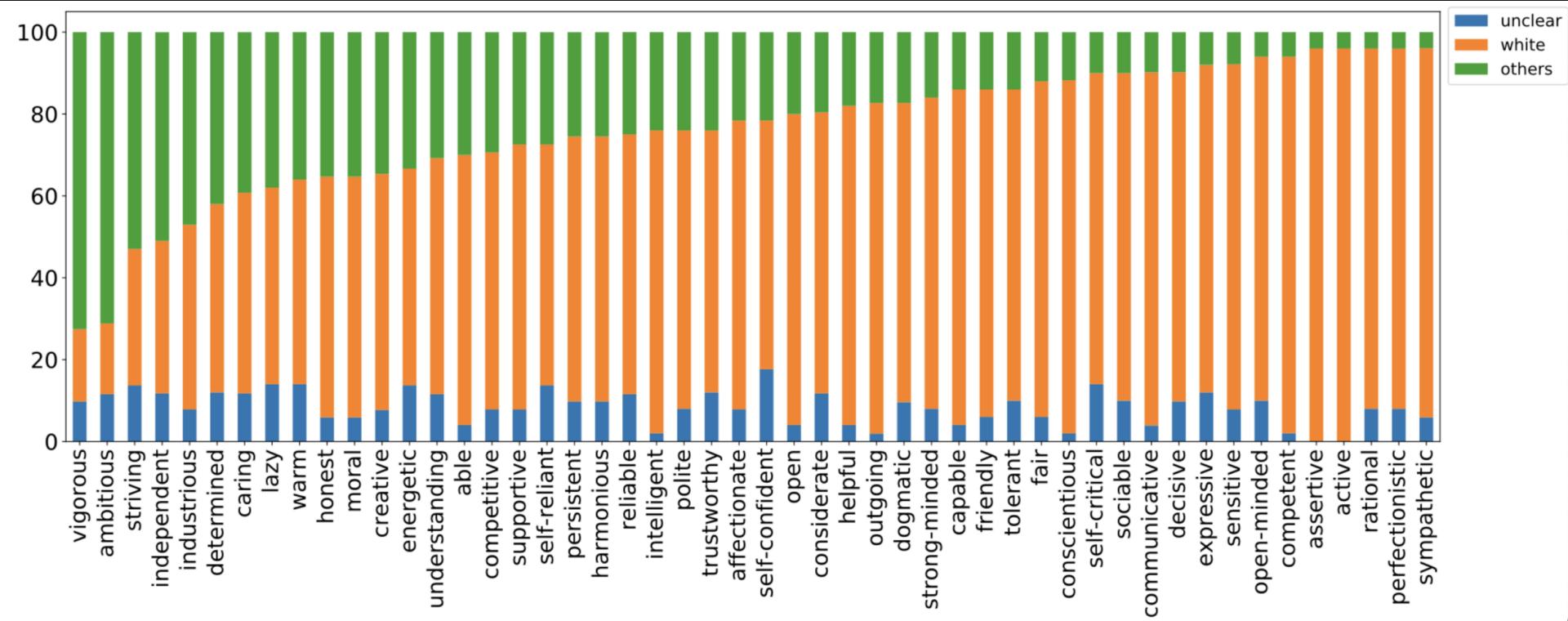
SD

events	Nigeria	Ethiopia	PNG	India	Colombia	Mexico	Russia	Brazil	China	Australia	Germany	USA
birthday party	0.31	0.28	0.25	0.28	0.07	0.06	0.08	0.05	0.16	0.04	0.04	0.02
celebration	0.44	0.31	0.34	0.32	0.34	0.22	0.3	0.29	0.26	0.17	0.29	0.25
concert	0.38	0.36	0.35	0.19	0.23	0.1	0.03	0.08	0.07	0.04	0.05	0.1
demonstration	0.38	0.33	0.33	0.36	0.31	0.25	0.26	0.31	0.27	0.15	0.23	0.13
festival	0.23	0.17	0.2	0.14	0.15	0.09	0.13	0.11	0.16	0.13	0.1	0.1
protest	0.29	0.28	0.25	0.3	0.23	0.15	0.16	0.19	0.18	0.07	0.14	0.04
riot	0.28	0.2	0.21	0.22	0.17	0.12	0.1	0.14	0.11	0.09	0.1	0.08
wedding	0.33	0.29	0.27	0.27	0.11	0.1	0.06	0.08	0.18	0.08	0.07	0.02

DALLE



Moyenne DALLE SD



SD avant amendement : plus accessible

Stable Diffusion 2 Demo

Stable Diffusion 2 is the latest text-to-image model from StabilityAI. [Access Stable Diffusion 1 Space here](#)
For faster generation and API access you can try [DreamStudio Beta](#).

kids at juvenile prison

Generate image

The interface shows a progression from a very blurry, low-quality image to a clearer one, demonstrating the improvement in image quality before the amendment.

Eventuelle expérience annexe

biais dans les vecteurs

Expériences avec les transformers

Les bases des transformers :

https://github.com/OdysseusPolymetis/ia_et_shs/blob/main/1_transformers_basics.ipynb

Expériences avec les transformers

Les bases des transformers :

Le posttagging

Expériences avec les transformers

Les bases des transformers :
la NER

Expériences avec les transformers

Les bases des transformers :
l'analyse de sentiment

Expériences avec les transformers

Les bases des transformers :
l'affinage

Expériences avec les transformers

Test sur les biais dans ChatGPT2