

The Perception of AI

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The
Guardian

Our Question & Topic

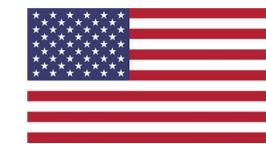
Is AI perceived differently in different regulatory environments?



- ▶ Followed the EU regulations until Brexit
- ▶ Focused on the potential risks of AI and the protection of fundamental rights
- ▶ The newest proposal on AI regulation reflects a less centralised and more risk-based approach than the EU
- ▶ Nr 3 of Oxford Internet Institute Index on AI Readiness 2021

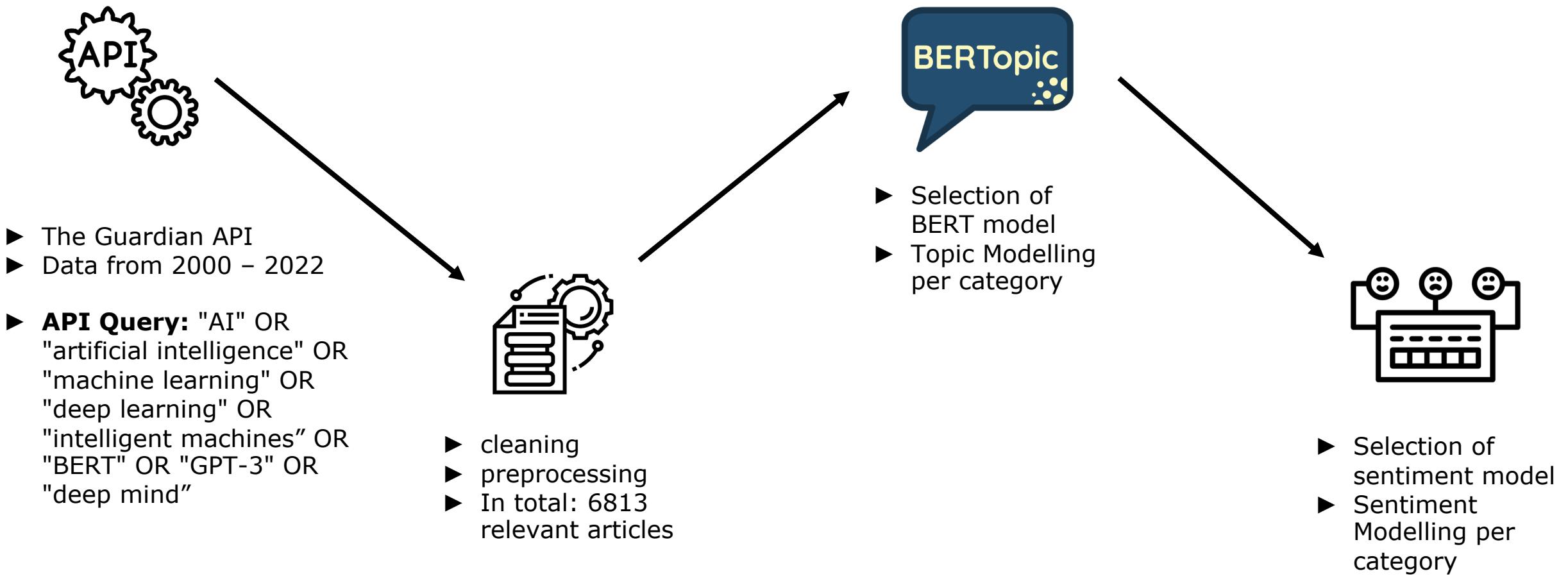


- ▶ Follows both US and EU regulatory efforts regarding AI
- ▶ Strong government efforts to develop an AI strategy
- ▶ Nr 14 of Oxford Internet Institute Index on AI Readiness 2021



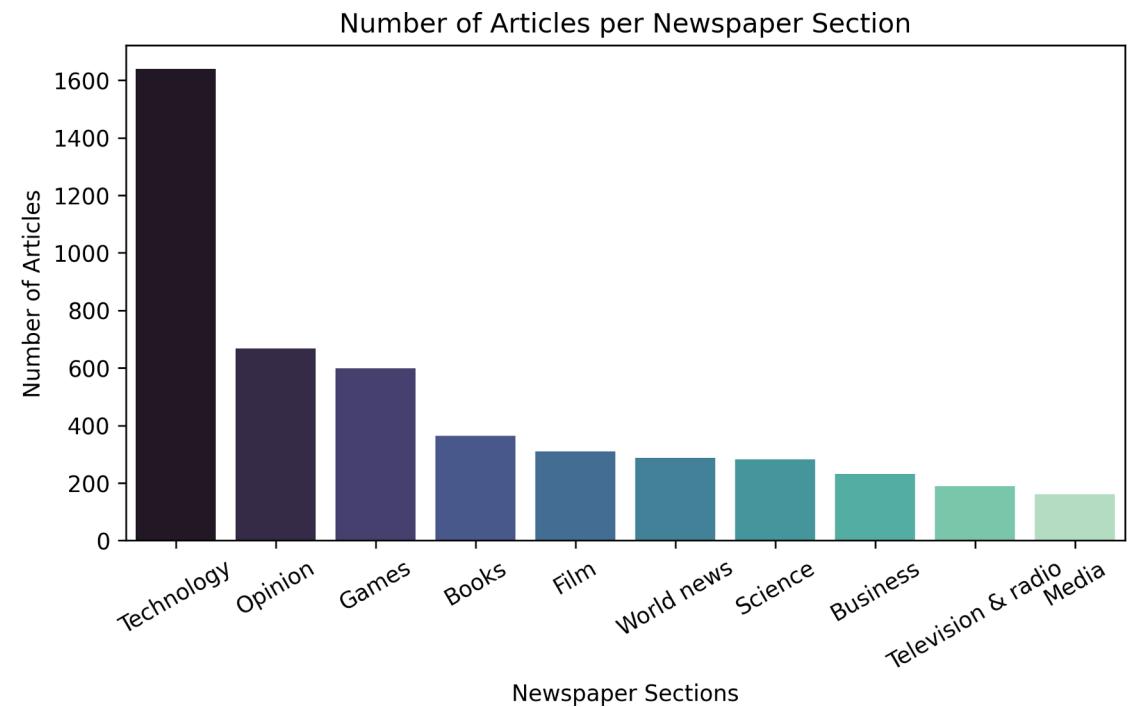
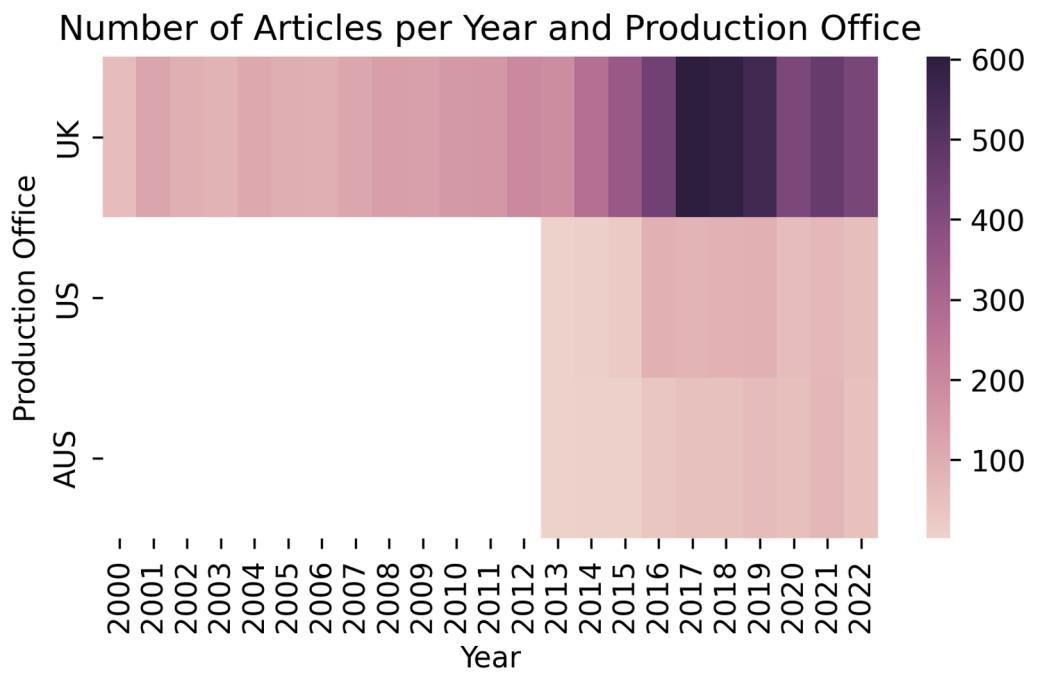
- ▶ Greater focus on potential of AI for innovation and preserving international competitiveness
- ▶ Greater hesitancy in introducing legal restrictions comparable to those of the EU
- ▶ Introducing soft law is currently favoured for governance
- ▶ Nr 1 of Oxford Internet Institute Index on AI Readiness 2021

Methodology

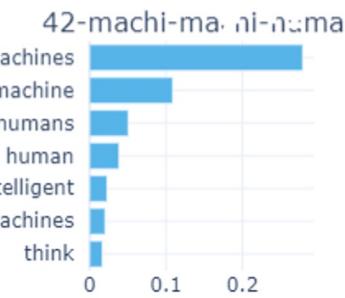
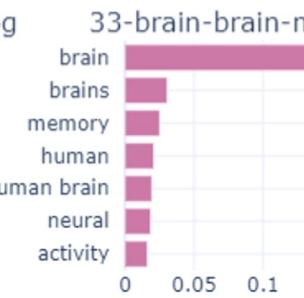
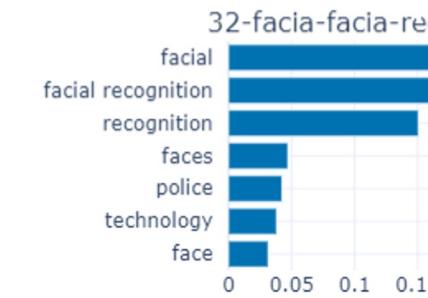
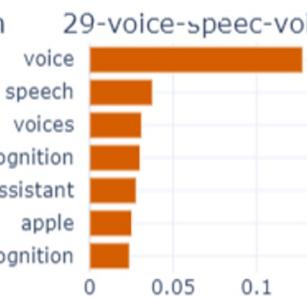
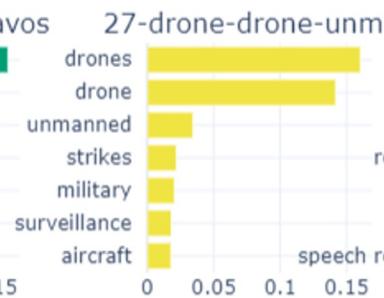
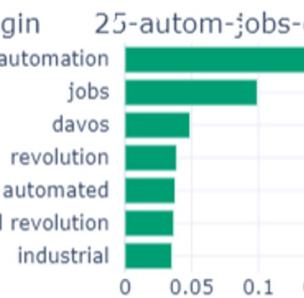
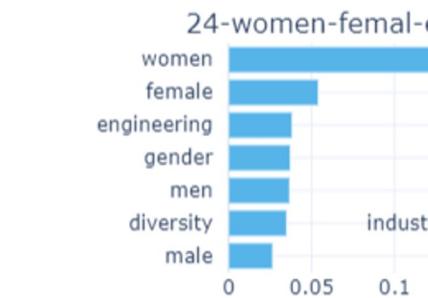
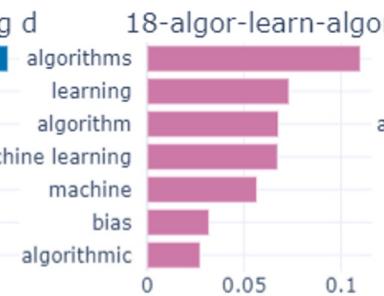
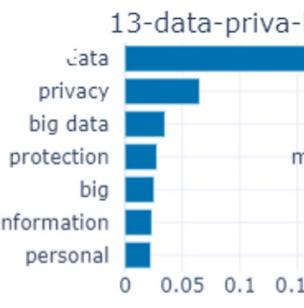
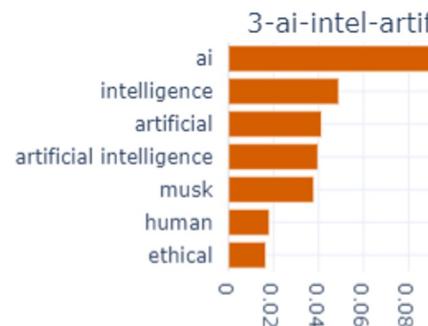


Source: All icons were provided by the Noun Project

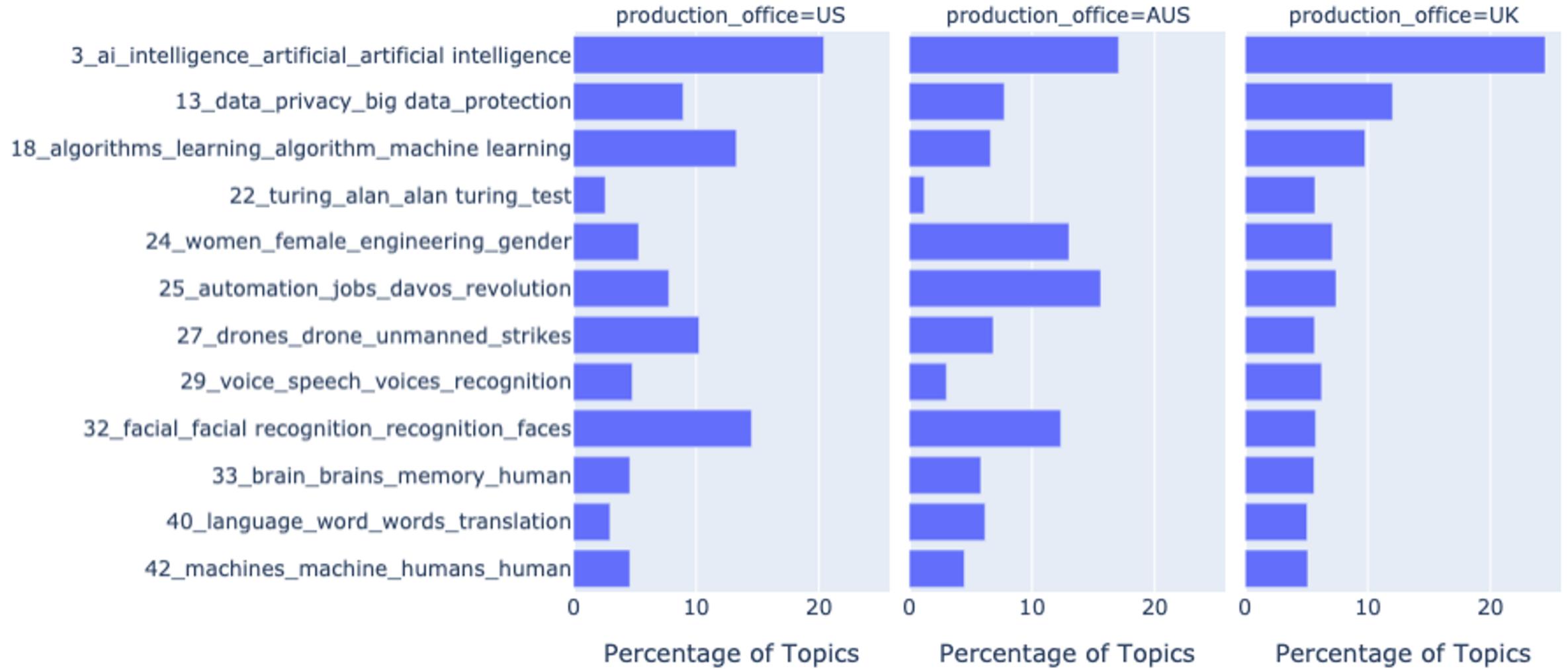
Our Data



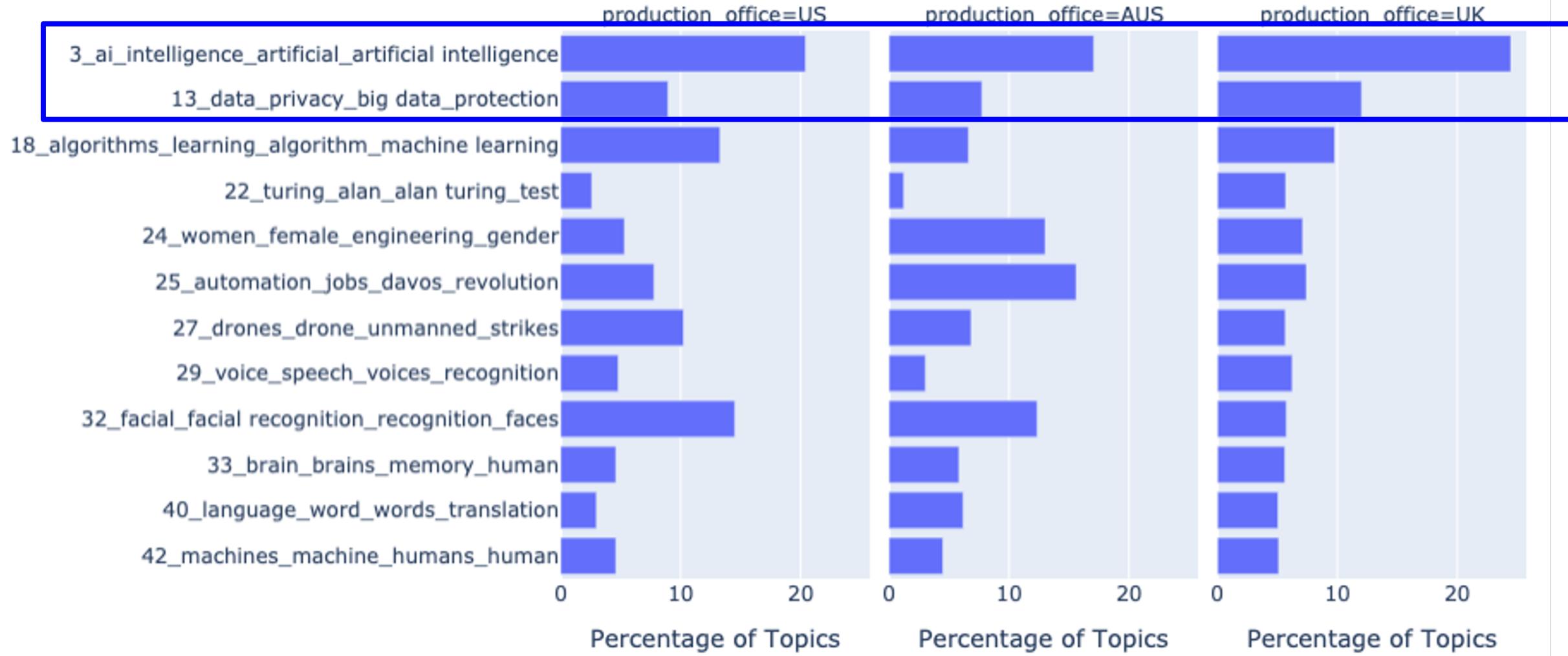
Relevant Topics



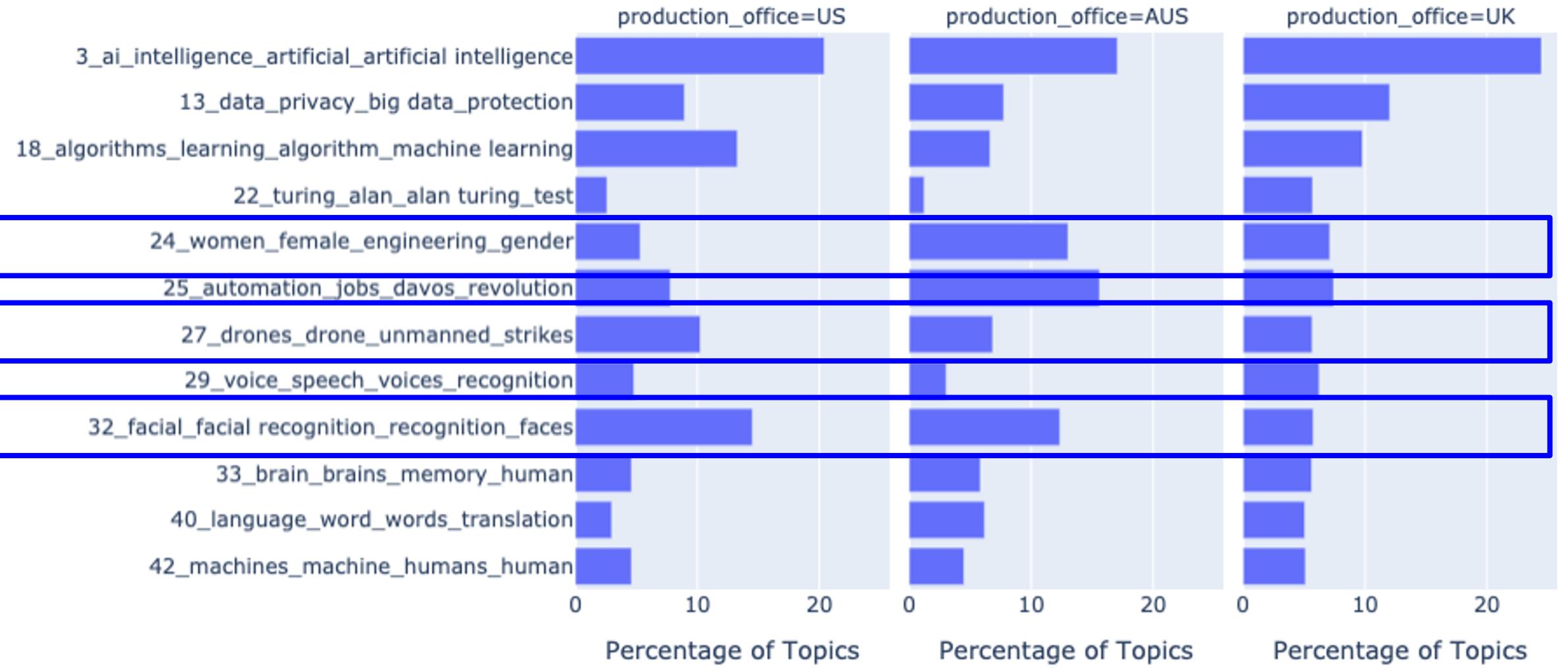
Topics per Country



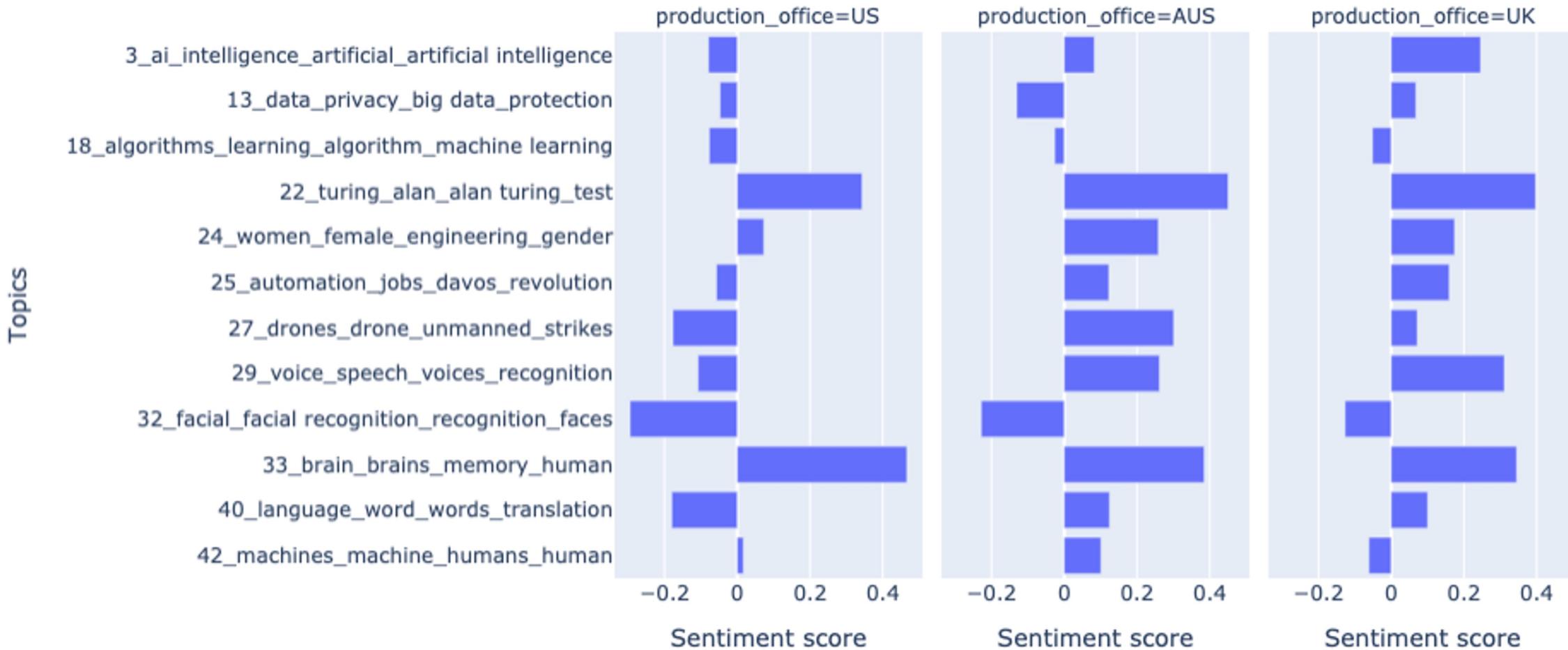
Topics per Country



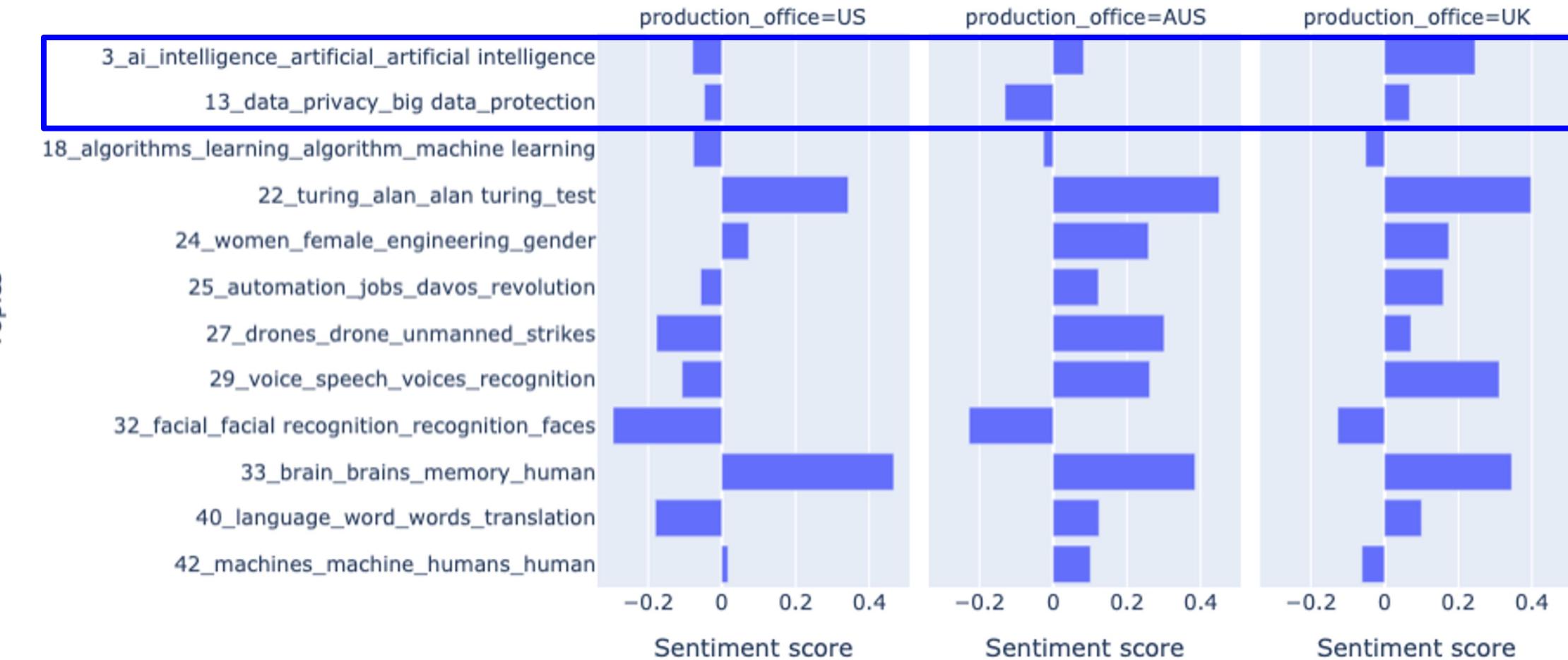
Topics per Country



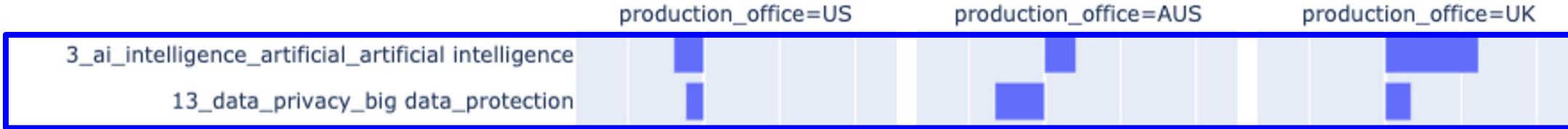
Sentiments



Sentiments



Sentiments



US:

"This type of oversight makes me worried that their stated commitment to the other important values and goals – like taking seriously creating AI to serve the 'collective needs of humanity' – is also empty PR spin and this will be nothing more than a vanity project for those attached to it," she wrote in an email.'

UK:

The overall impression is that society in general seems to recognise intelligence when it sees it, even if it is a bit inconsistent.

AUS:

AI has the potential to make organisations more effective and efficient, but the technology raises serious issues of ethics, governance, privacy and law.

Sentiments



Sentiments

Drones:

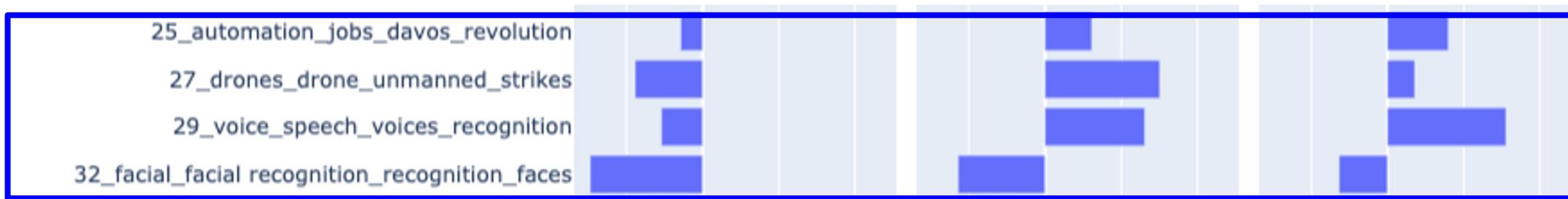
US: Remote-controlled drones create a layer of dehumanization that is already present in police interactions.

UK: The report, The Security Impact of Drones: Challenges and Opportunities for the UK, concluded that the threshold for the use of force would not be lowered by the use of drones but warned that it depended on "parliament playing its proper oversight function".

AUS: Roving machines and drones will threaten the livelihood of that already dwindling breed, the stockman.



Sentiments



Facial Recognition:

US: Problems with gender and racial biases have been well documented in other AI-based technology such as facial recognition, and they could also exist in these types of systems, says Vicente Ordóñez-Roman, a computer vision expert at the University of Virginia.

UK: It said Clearview had broken data protection law by failing to process the information of people in the UK in a way they were likely to expect or that was fair.

AUS: Additionally, artificial intelligence and machine learning technologies are being used by police forces for facial recognition to identify protestors at marches and many other ethically dubious purposes.

Findings

Is AI perceived differently in different regulatory environments?

NO, topics in 3 countries are relatively similar, same as attached sentiments

BUT...

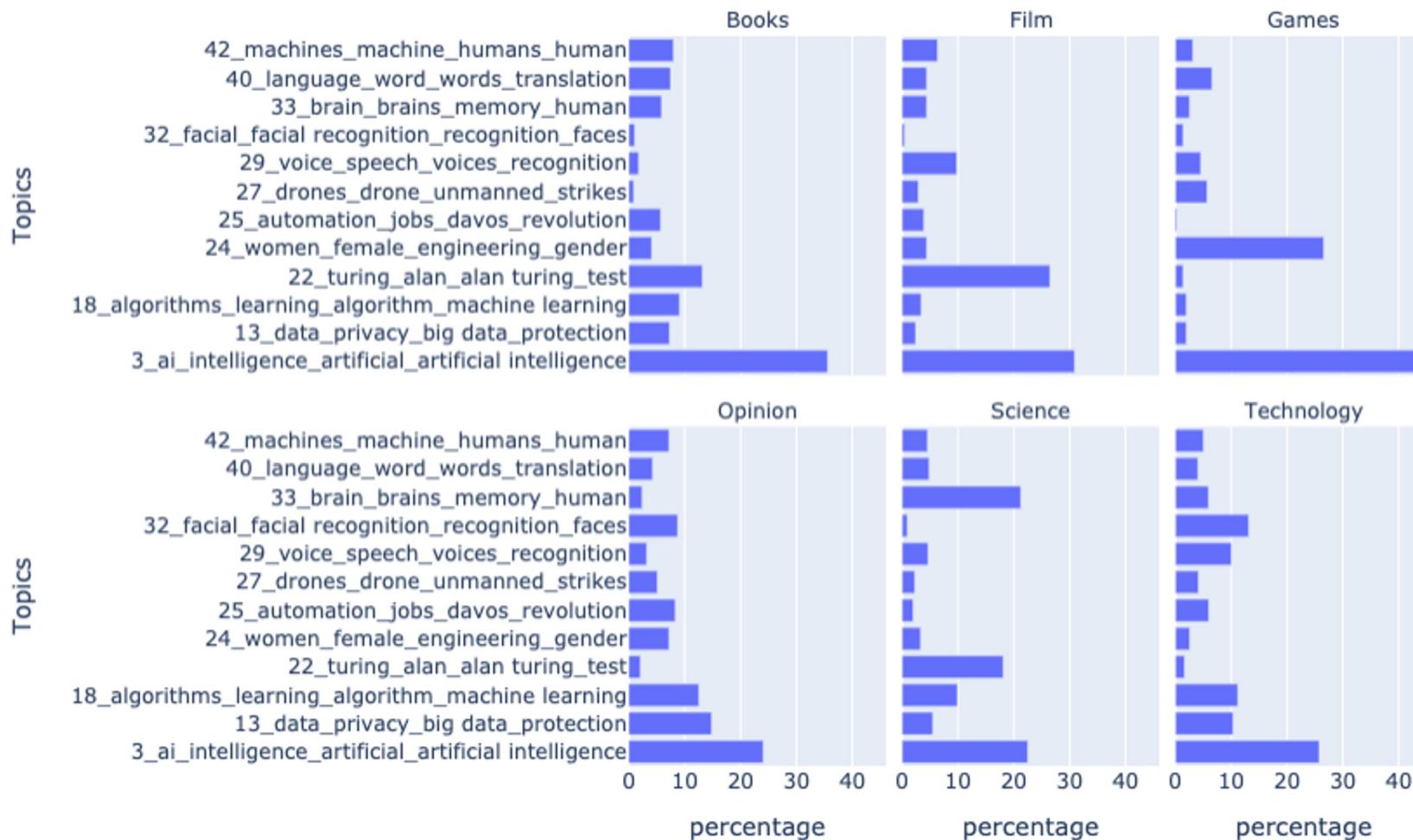
... with the exception of drones & facial recognition
... which come with more negative sentiments in Australia and in the US

WHY?

... more AI backlash in a less regulated environment (?)
... context specific discussions

Limitation (1)

Percentage of Topics per Section



Limitation (1)

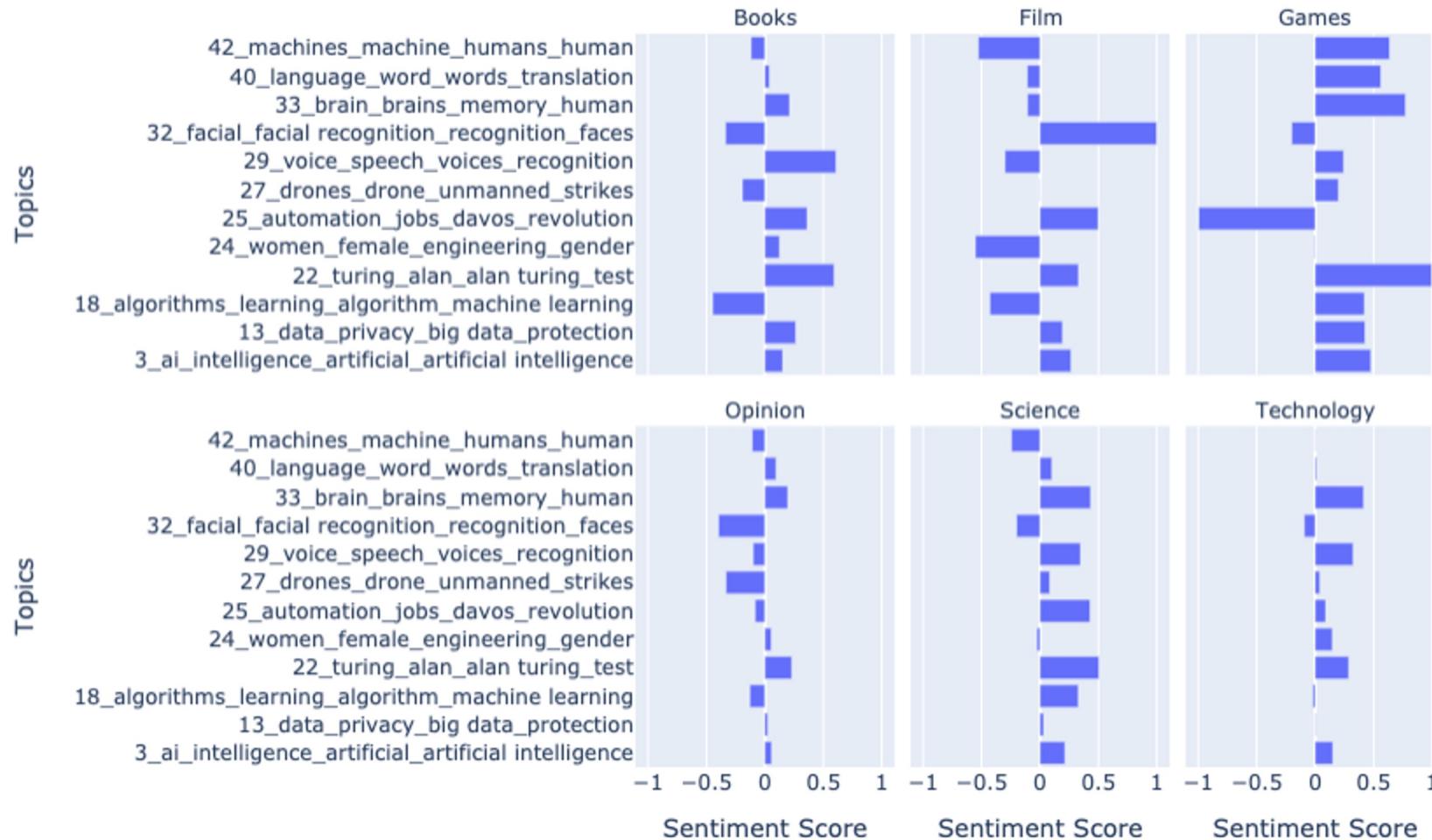


Limitation (1)



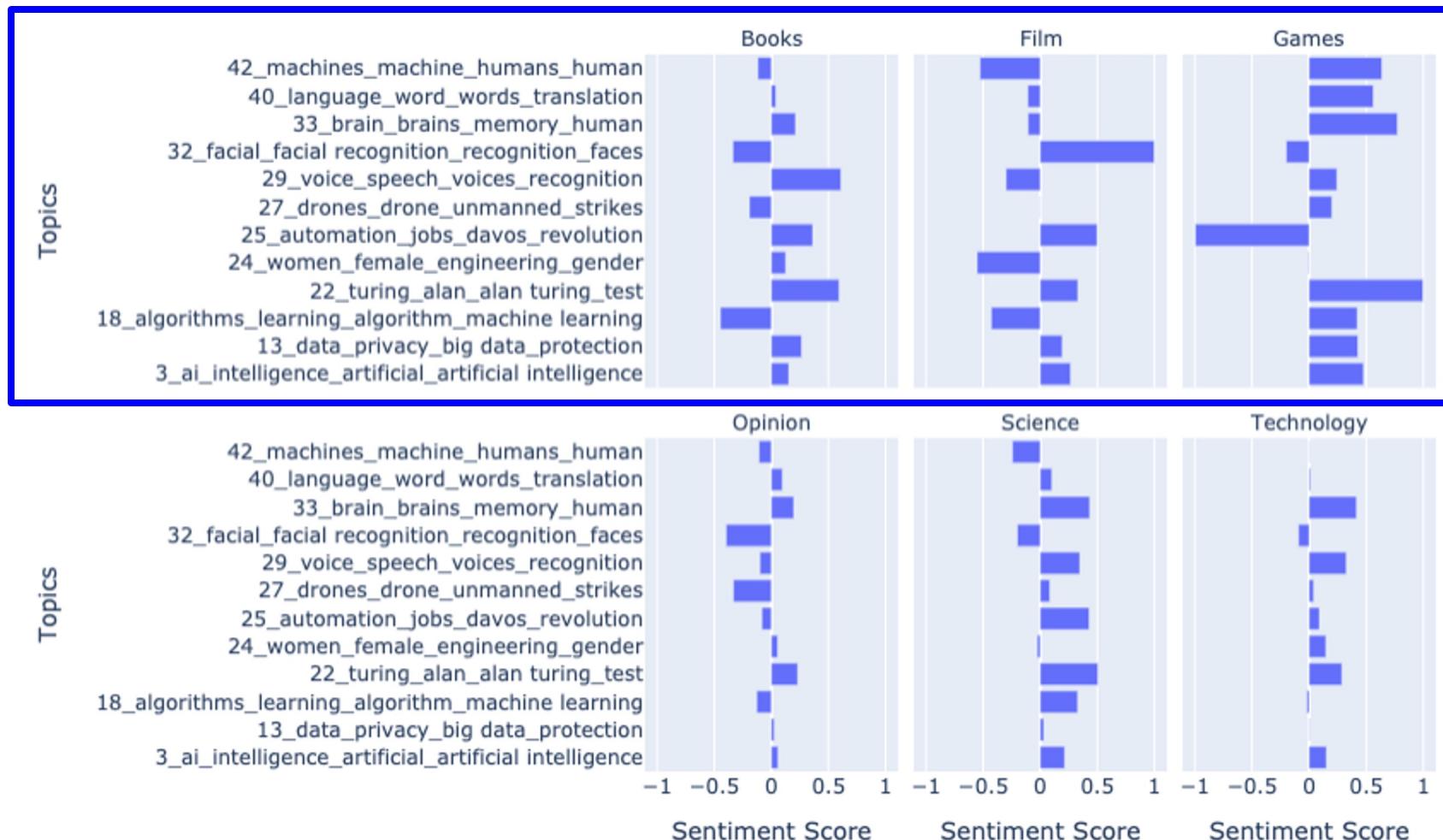
Limitation (2)

Sentiment per Topic per Section



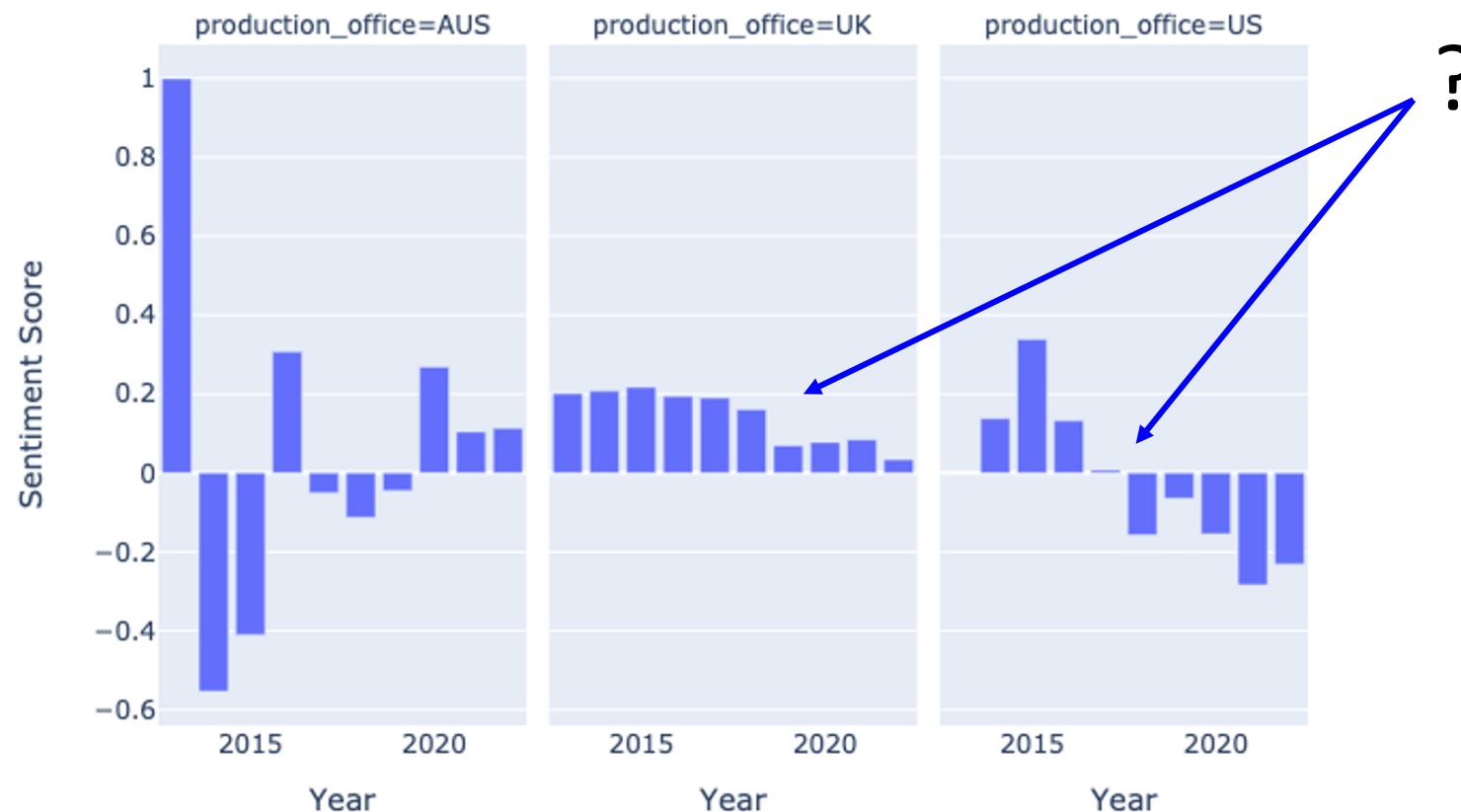
Limitation (2)

Sentiment per Topic per Section



Outlook & Further Research

Sentiment score of sentences between 2013 and 2022 per Country.



Outlook & Further Research

So, what's next?



Analyze shift of topics and sentiment over time and correlate with important events (like scandals, regulations, etc.)



Broaden the dataset to a more diverse set of newspapers, ideally representing the whole “spectrum”



Include more countries and especially more diverse regulatory environments

Resources Used

Bert Dynamic Topic Modelling:

- https://maartengr.github.io/BERTopic/getting_started/topicsovertime/topicsovertime.html
- https://github.com/sejaldua/digesting-the-digest/blob/main/BERTopic_MDD.ipynb

Regulatory environment:

- <https://www.oi.ox.ac.uk/news-events/news/the-eu-and-the-us-two-different-approaches-to-ai-governance/>
- <https://www.technologylawdispatch.com/2022/09/privacy-data-protection/uk-government-announces-its-proposals-for-regulating-ai/>
- <https://www.sciencedirect.com/science/article/abs/pii/S0927537103000551>

Sentiment analysis:

- <https://huggingface.co/blog/sentiment-analysis-python>
- https://huggingface.co/docs/transformers/main_classes/pipelines
- <https://huggingface.co/siebert/sentiment-roberta-large-english>

The Guardian API:

- <https://open-platform.theguardian.com/>