

Background: “Many users can access the same papers through their libraries but turn to Sci-Hub instead—for convenience rather than necessity” ① (Bohannon , 2016).

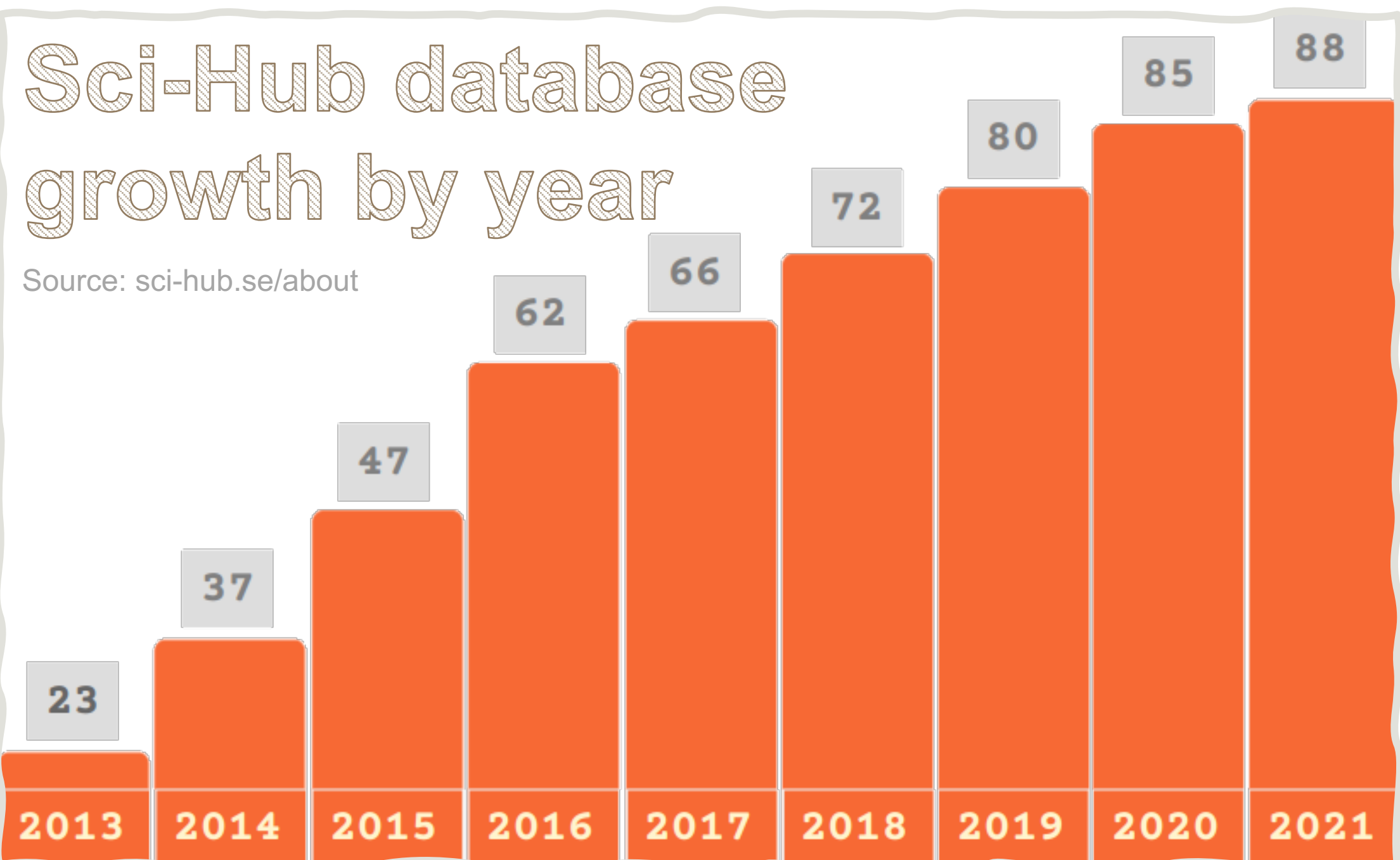


In 2015, Elsevier, the largest scholarly journal publisher filled and won a lawsuit in U.S. against Sci-Hub whose founder is Alexandra Elbakyan.



## Sci-Hub database growth by year

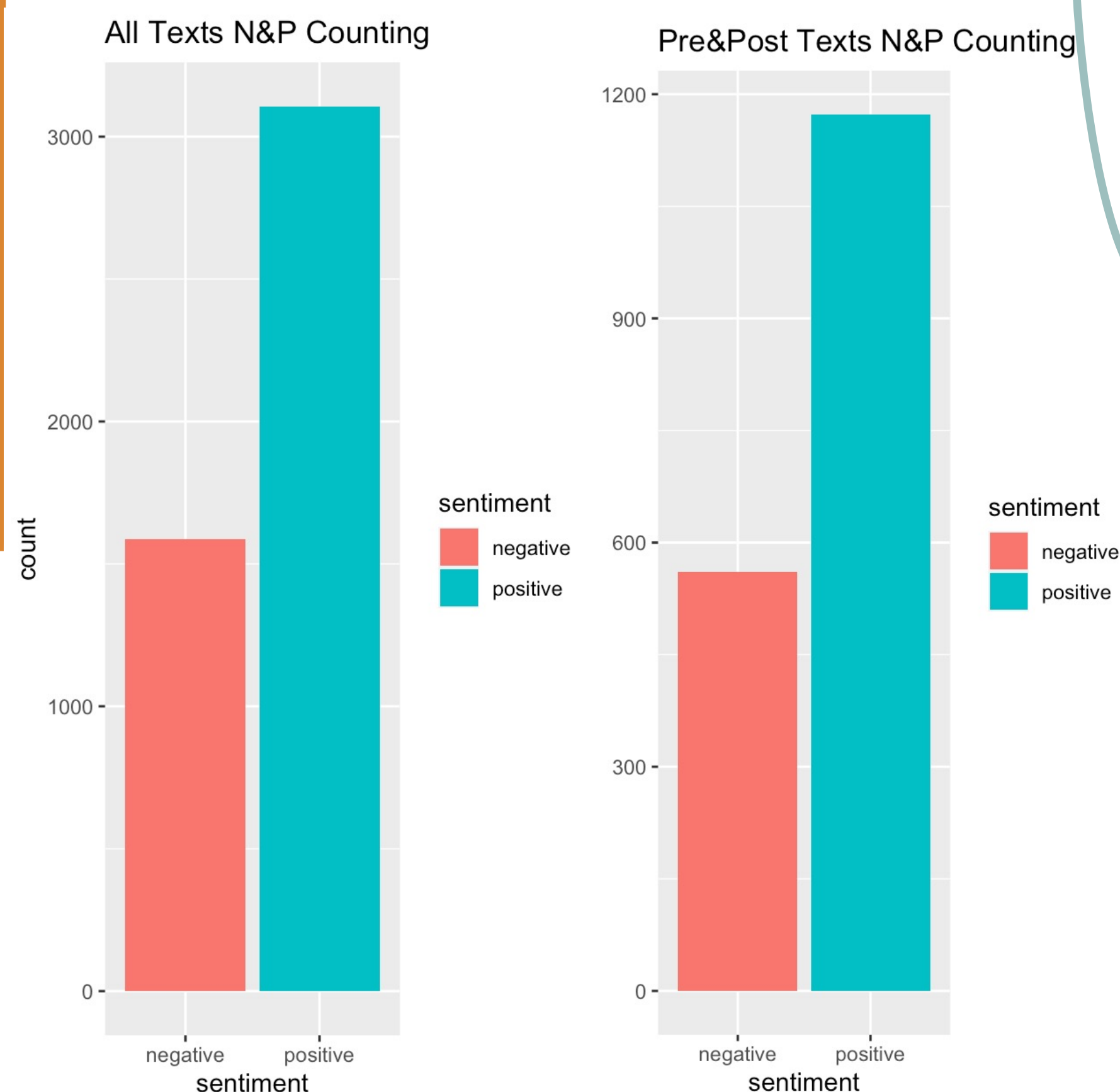
Source: sci-hub.se/about



What the analysis includes?	
Sentiments	Polarity of attitude among texts
Emtions in all texts	Proportion of words associated with each emotion in the text <ul style="list-style-type: none"><li>all, news and academe</li></ul>
Emotions in pre&post texts	texts of pre-five and post-five words around “sci-hub”

## Sentiment Analysis

by using  
NRC Word-Emotion Association Lexicon  
(aka EmoLex)



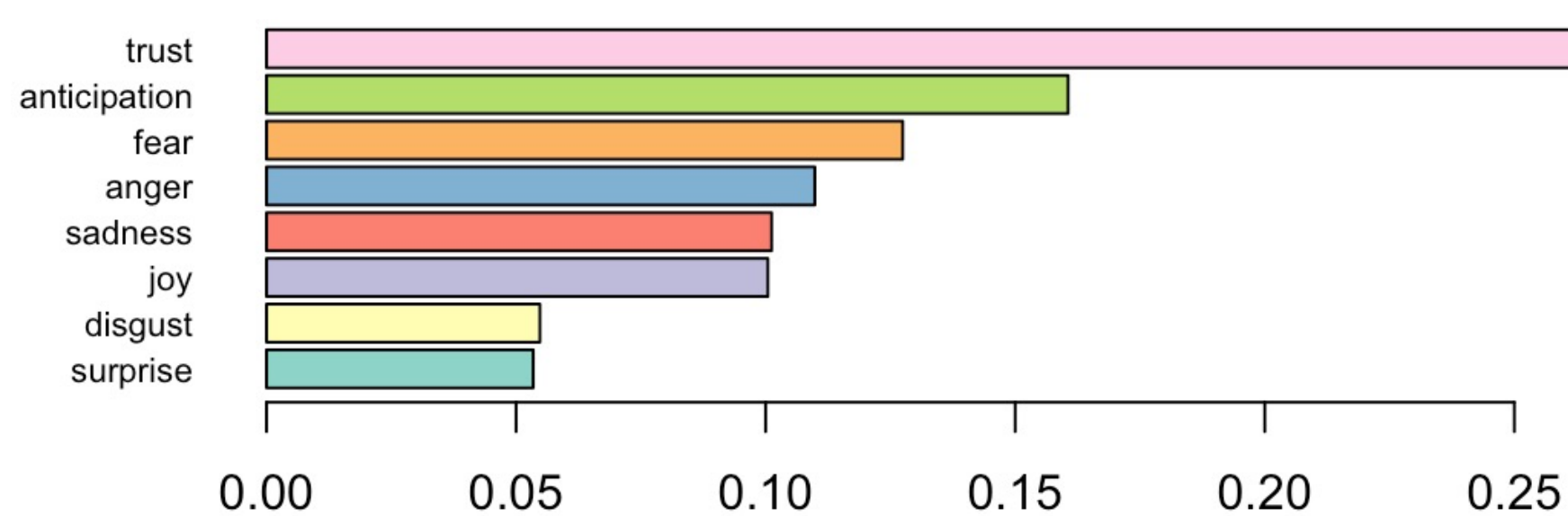
## Sources of Texts

All has DOI

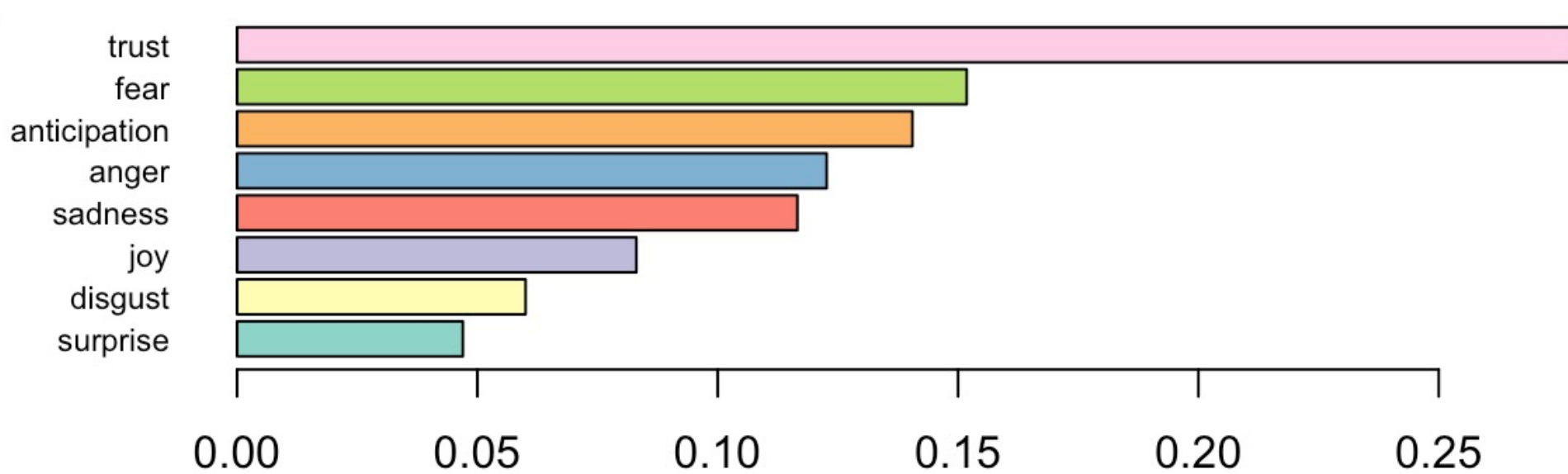
News	Nature	16 + 5 brief
	Science	1
	Libraries news	1
Academe	Journals	25
	Letter	2
	Conversation	1
Total		51

First word-emotion association lexicon, with entries for **8 basic emotions** (anger, fear, anticipation, trust, surprise, sadness, joy, and disgust) and **2 sentiments** (negative and positive). (S. Mohammad, n.d.).

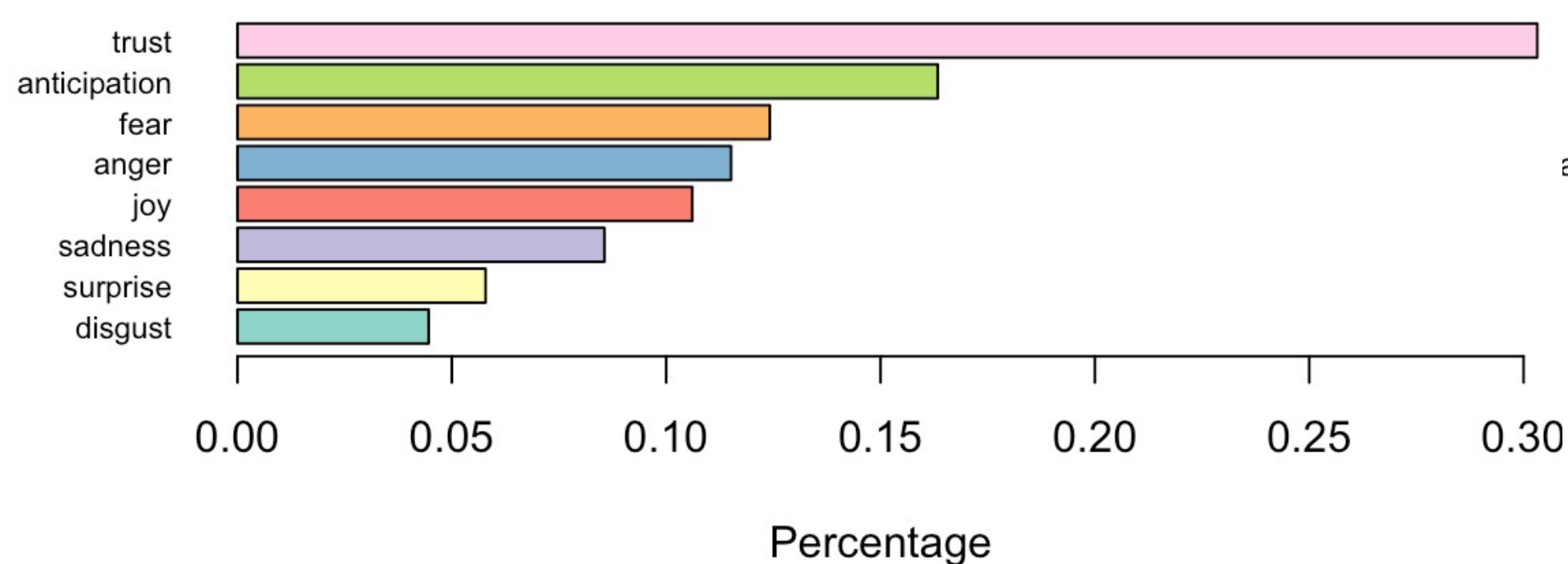
Emotions in all text



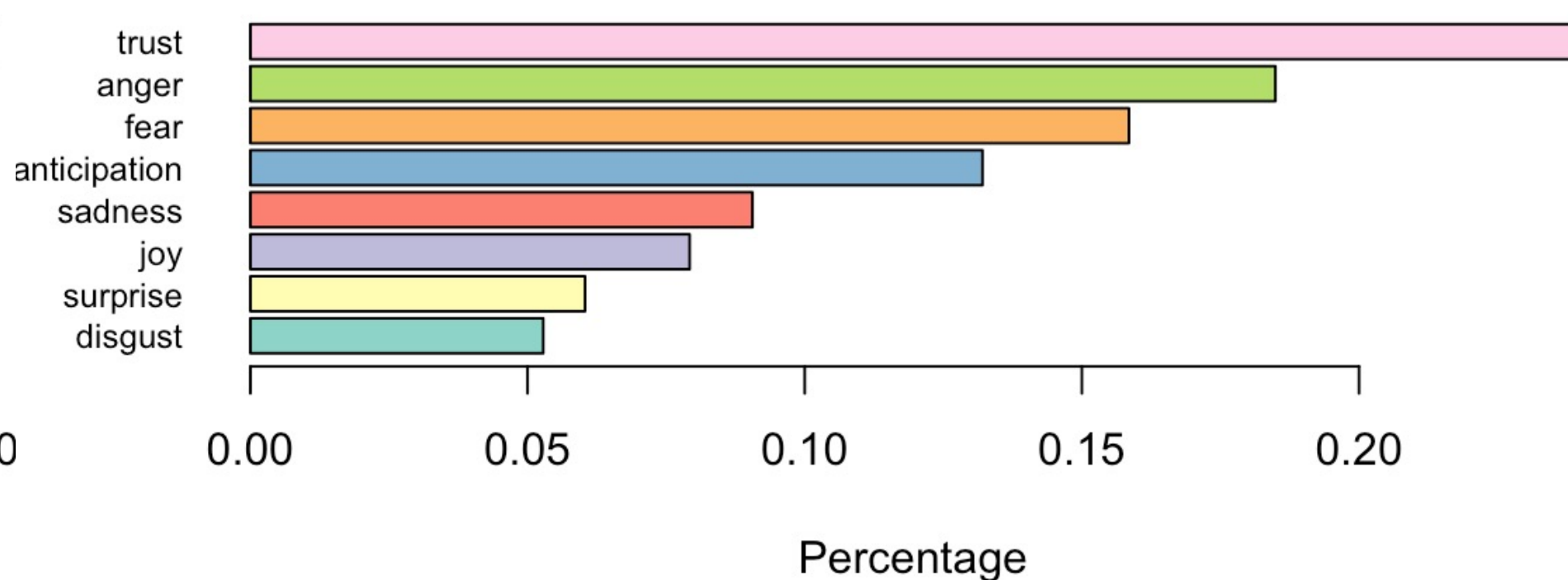
Emotions in pre&post text



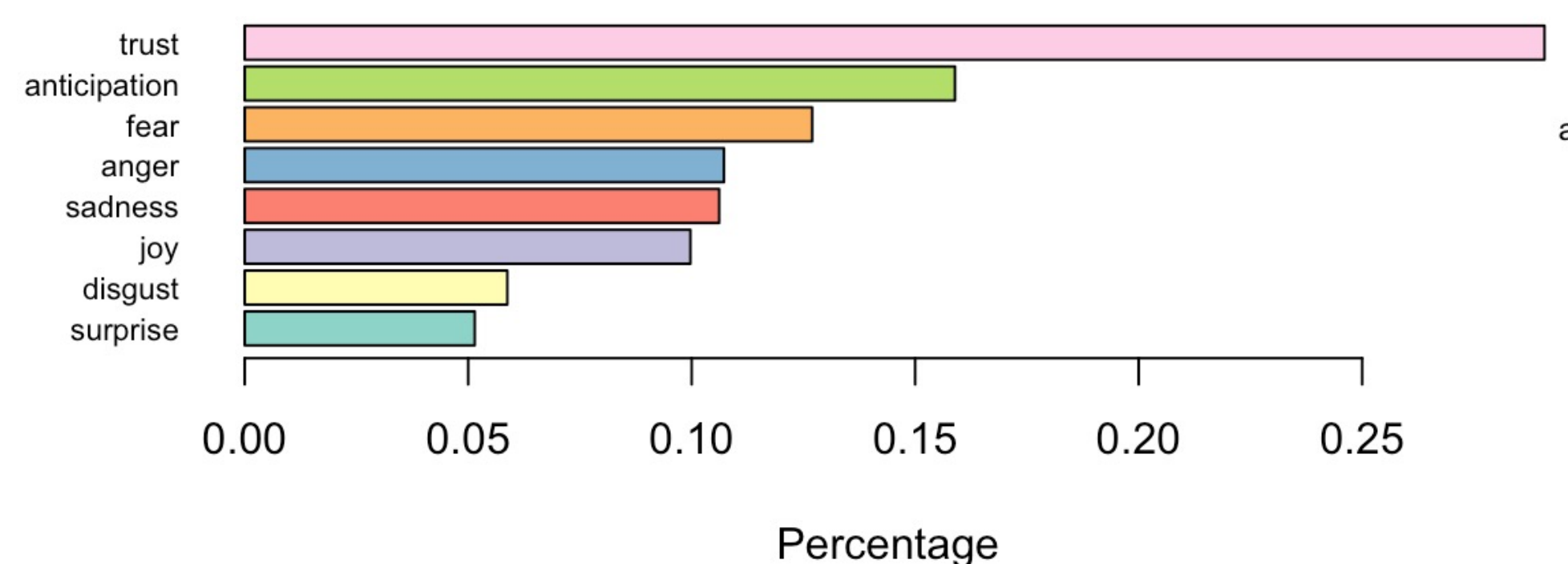
Emotions in all news\_text



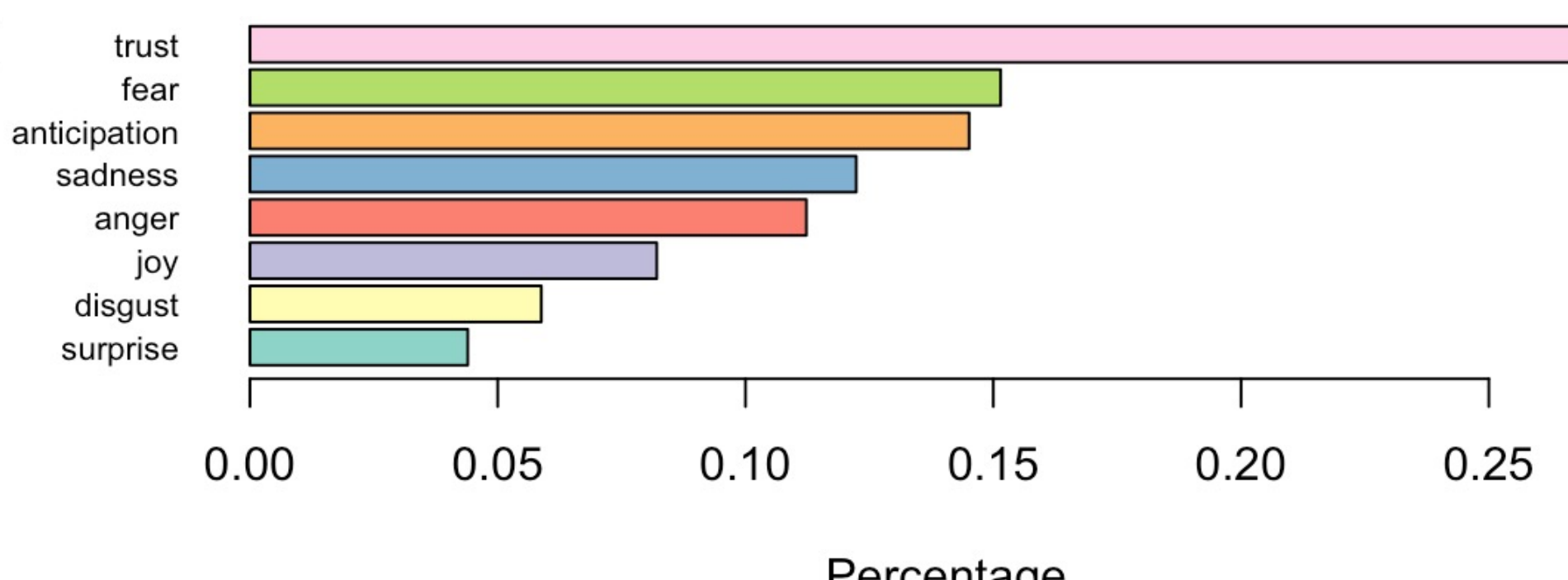
Emotions in pre&post news\_text



Emotions in all academe\_text



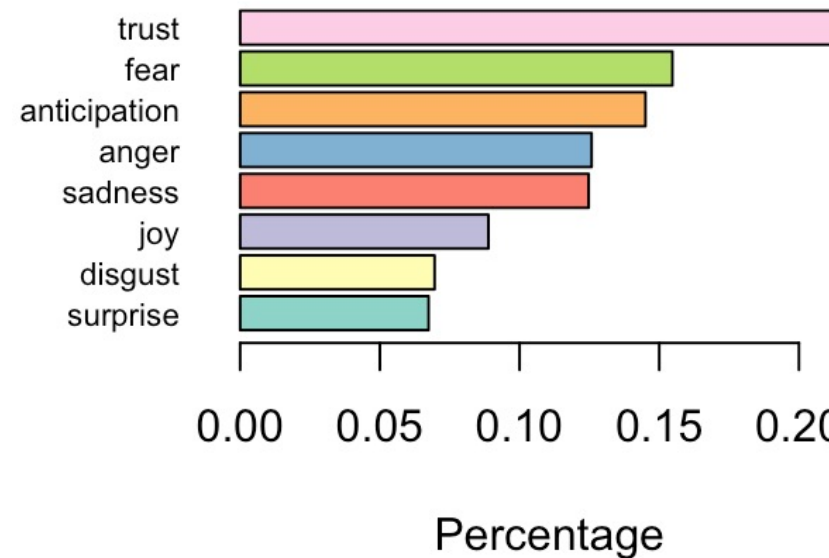
Emotions in pre&post academe\_text



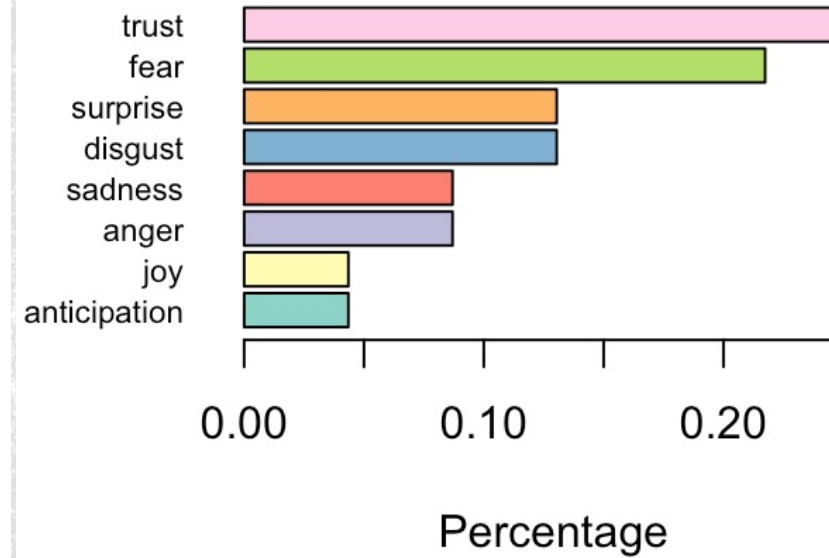
## Also, one book

Shadow Libraries:  
Access to Knowledge in Global Higher Education

Emotions in book text



Emotions in book pre&post text



## It talks about

- Informal networks of sharing materials
- (Organized archives) circulating offline and online
- Universalist in principle and unequal in practice

(Karaganis, 2018)

## References

Bohannon, J. (2016). Who’s downloading pirated papers? Everyone. *Science*, 352(6285), 508–512. <https://doi.org/10.1126/science.352.6285.508>

Karaganis, J. (Ed.). (2018). Shadow Libraries: Access to Knowledge in Global Higher Education. MIT Press.

Mohammad, S. (n.d.). NRC Emotion Lexicon. Retrieved June 21, 2022, from <https://saifmohammad.com/WebPages/NRC-Emotion-Lexicon.htm>

## Limitation

- ❑ The absence of neutral sentiment.
- ❑ The variability of language among texts.
- ❑ The incapacity of computer programs: sentiment is difficult to classify.

## Conclusion: tension in the digital era

- ❖ The texts in the context of effects by Sci-Hub from academic writing demonstrate a quite positive sentiment overall [Trust as first; Anticipation as second].
- ❖ The descriptions around the texts of Sci-Hub include a anger or a fear emotion as the second largest percentage throughout the texts.

<sup>1</sup> A “scraping” program goes to Sci-Hub, with requests showing Michigan State University (MSU)’s IP addresses, and downloaded papers from chemistry journals, in which MSU already subscribes to these journals.