

# Use of Formal Ethical Reviews in NLP Literature

## Historical Trends and Current Practices

ACL 2021 Findings

NLP for Positive Impact @ ACL 2021



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### Ethical Issues of NLP

NLP is being used extensively in day-to-day applications and is now touching human lives evermore, which raises concerns about the ethical issues and potential harms of NLP research.

How do we take care of this?

NLP researchers may not be fully aware of the ethical repercussions of their research, however they can consult their institution's Review Board (commonly known as IRB).

### Trends of seeking IRB approvals

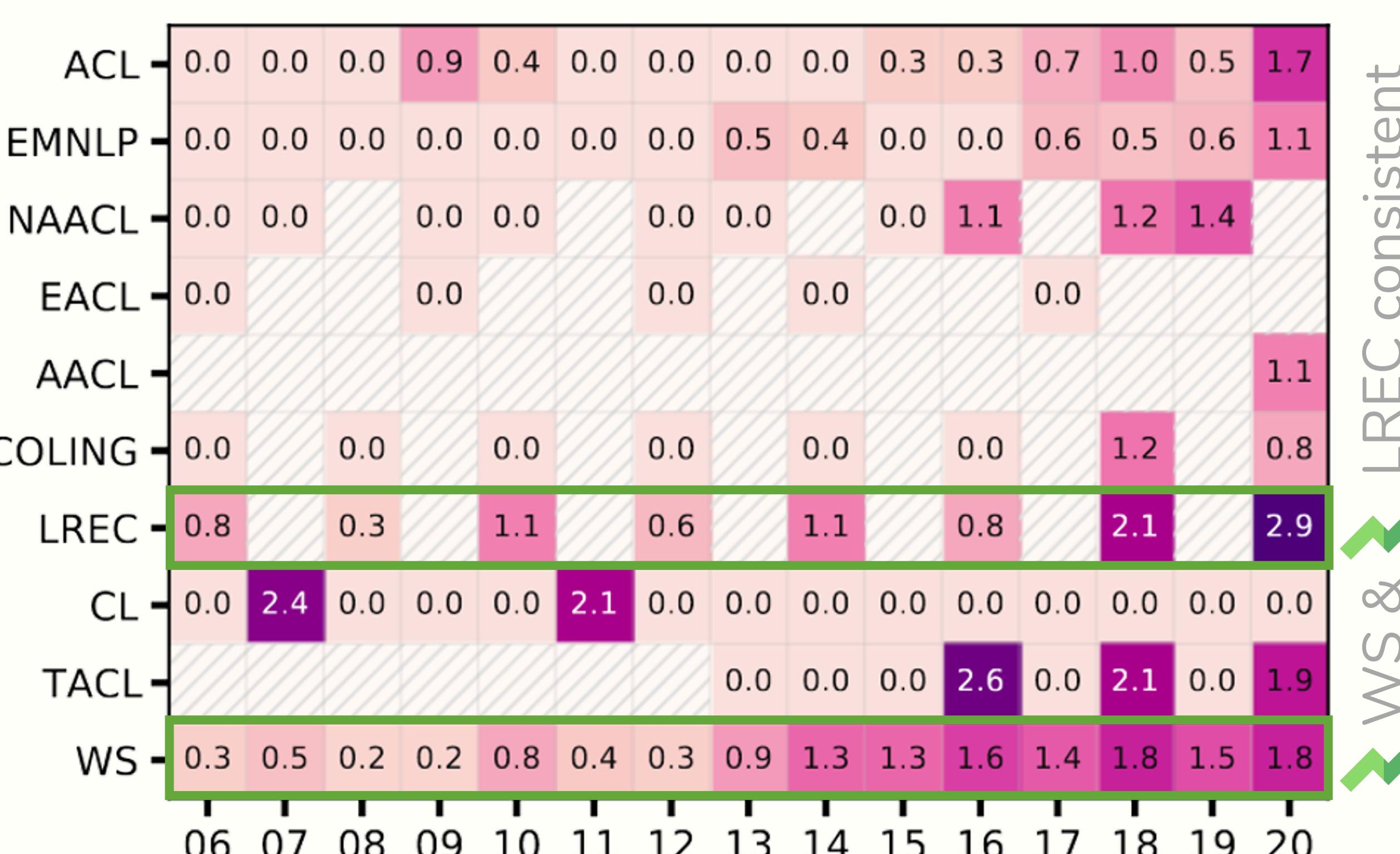
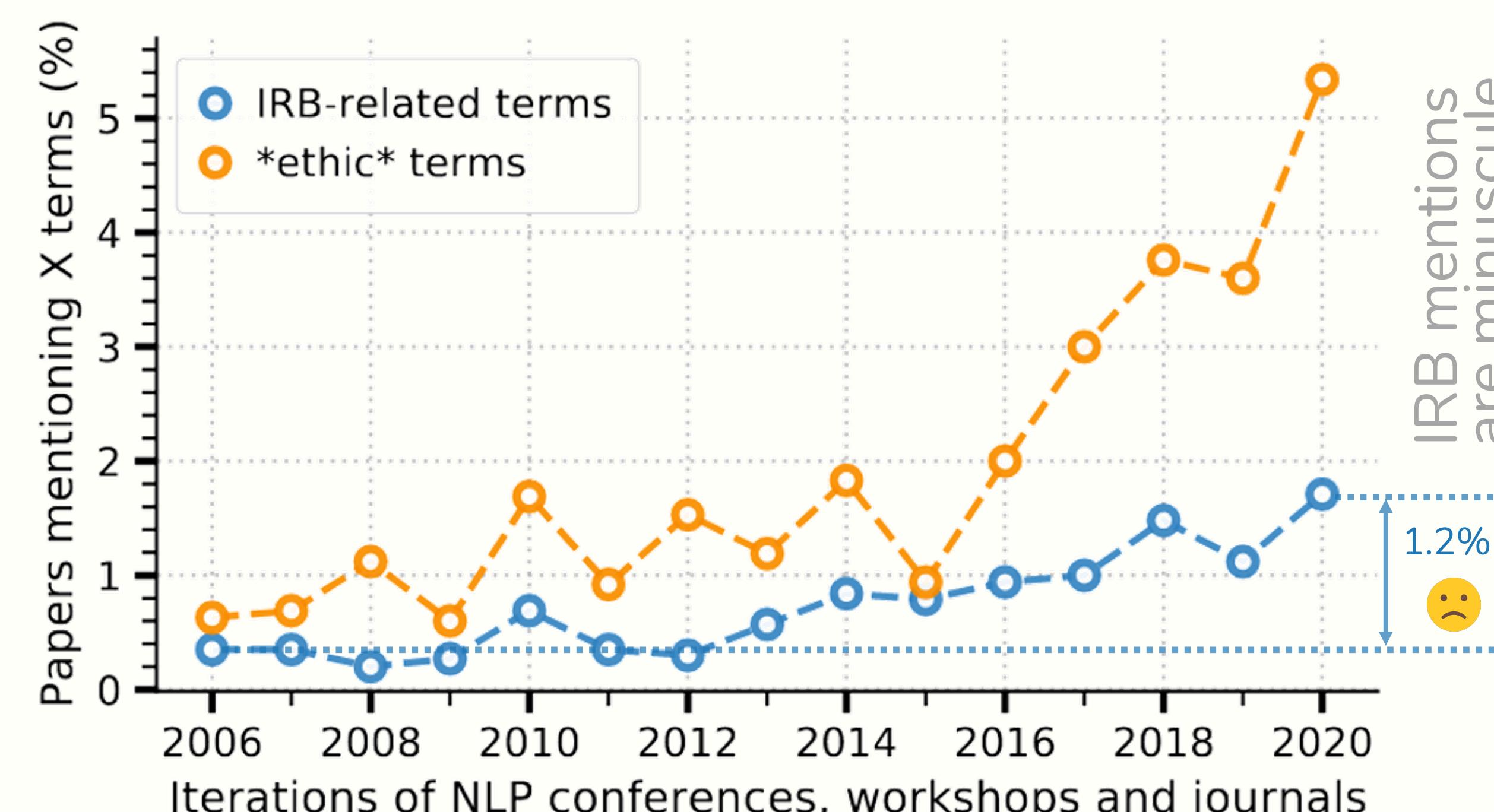
Previously observed mostly in bio-medical research, seeking IRB approvals is becoming prevalent in computing research due to its significant impact to human subjects and society at large.

But how is NLP research faring?

We look at the trends of seeking IRB approvals in NLP research through their mentions in the NLP papers. We:

- check the trends of IRB mentions in NLP papers over the past 15 years.
- understand the *aspects* and *topics* for which IRB approvals were sought.
- look at the affiliation type and geography of these NLP papers.
- compare with other related conferences.

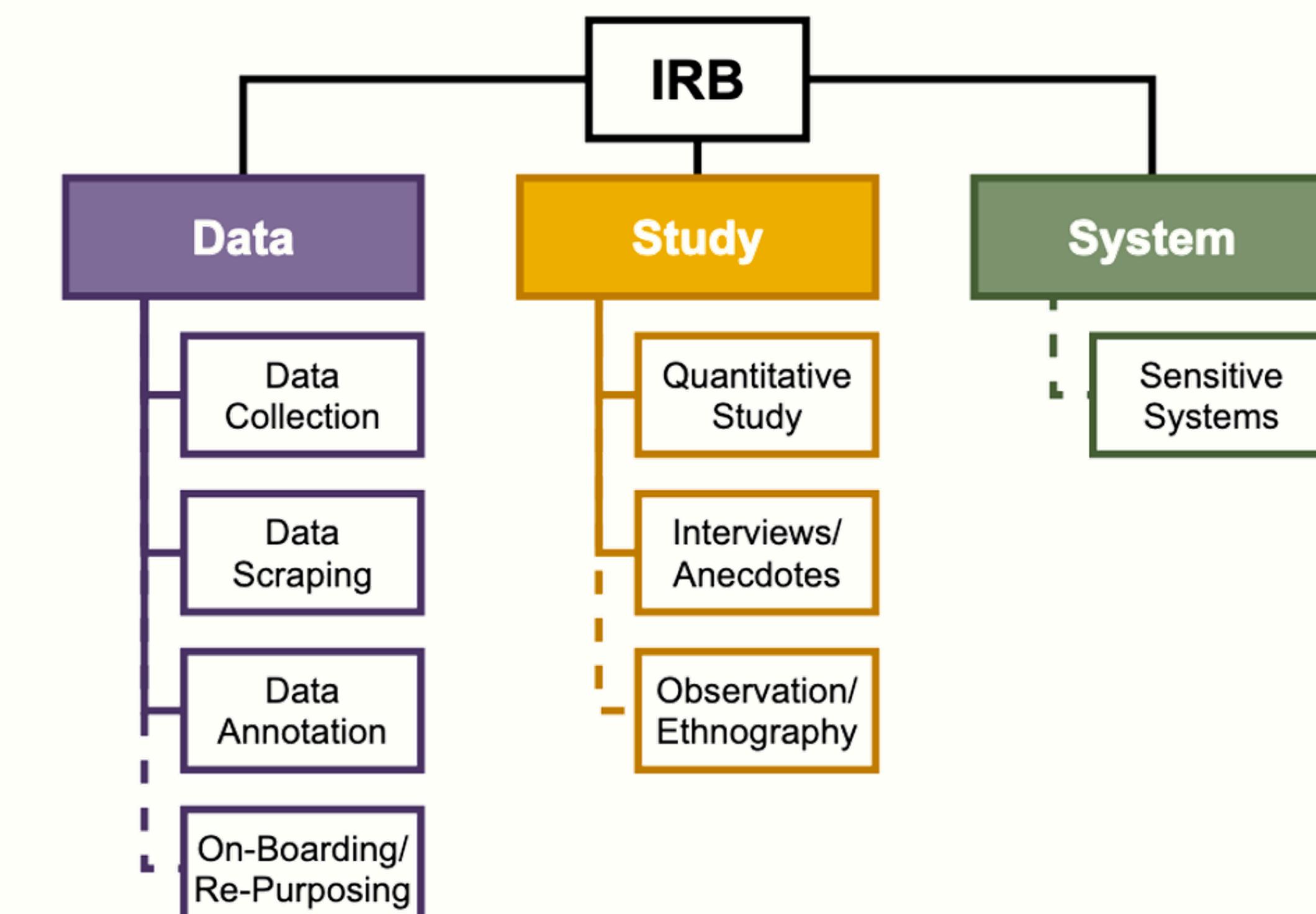
### IRB mentions in NLP papers



### Types of IRB mentions in NLP papers

Statistics on *aspects*

- Collection: 41.3% (24)
  - Annotation: 34% (20)
  - Scraping: 13% (7)
  - User Studies: 20% (12)
  - Data Repurposing: 1 paper
  - Sensitive System: 1 paper
- which is too less...



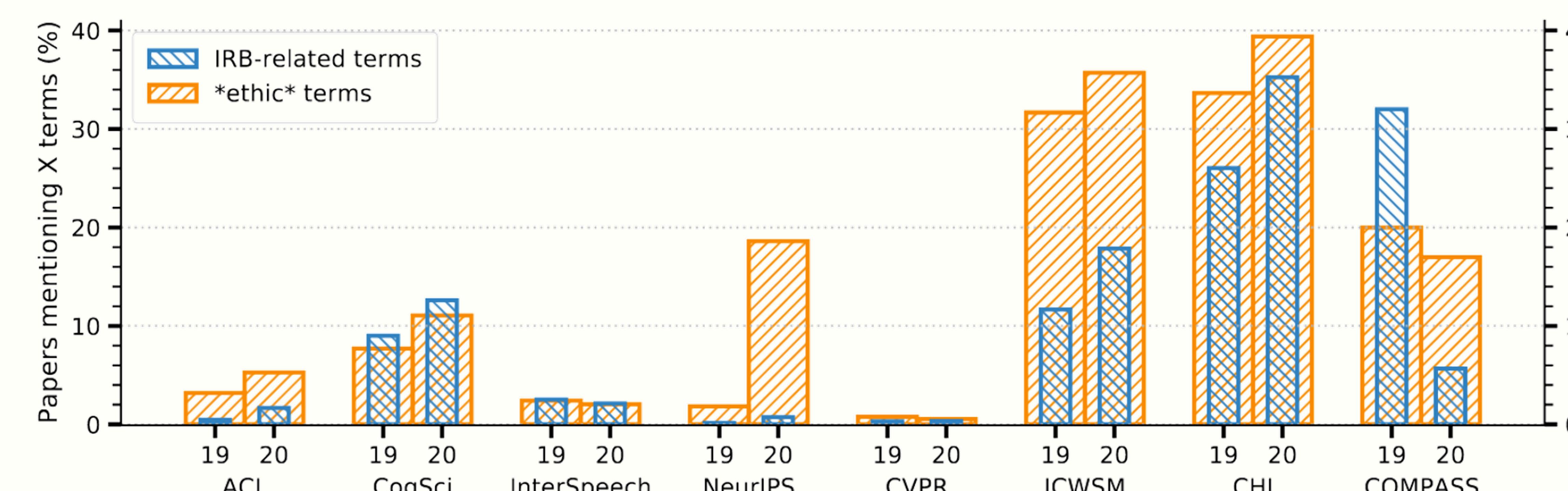
### Geography and Affiliation Type

Countries	Total Papers	Percent Papers
USA	47/5368	0.88%
Canada	5/358	1.40%
Germany	5/850	0.59%
UK	5/1088	0.46%
Netherlands	3/226	1.33%
Sweden	2/100	2.00%
South Korea	2/151	1.32%
China	2/2350	0.09%

Affiliation Types	Total Papers	Percent Papers
University	52/7730	0.67%
Industry	1/841	0.12%
National Lab	1/182	0.55%
Joint/Collaboration	11/2651	0.41%

WEIRD countries, universities take (or report) the most IRB approvals.

### IRB mentions in other related conferences



- NeurIPS, CVPR, Interspeech for AI and ML related work.
- Cognitive Science (or CogSci) for linguistics related work.
- ICWSM for web data analysis.
- CHI for HCI related work.
- COMPASS for work on real-world systems deployment.