Use of Formal Ethical Reviews in NLP Literature
Historical Trends and Current Practices

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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.

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**

<table>
<thead>
<tr>
<th>Countries</th>
<th>Total Papers</th>
<th>Percent Papers</th>
</tr>
</thead>
<tbody>
<tr>
<td>USA</td>
<td>47/5368</td>
<td>0.88%</td>
</tr>
<tr>
<td>Canada</td>
<td>5/358</td>
<td>1.40%</td>
</tr>
<tr>
<td>Germany</td>
<td>5/850</td>
<td>0.69%</td>
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<tr>
<td>UK</td>
<td>5/1088</td>
<td>0.46%</td>
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<tr>
<td>Netherlands</td>
<td>3/226</td>
<td>1.33%</td>
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<tr>
<td>Sweden</td>
<td>2/100</td>
<td>2.00%</td>
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<tr>
<td>South Korea</td>
<td>2/251</td>
<td>1.32%</td>
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<tr>
<td>China</td>
<td>2/2550</td>
<td>0.69%</td>
</tr>
</tbody>
</table>

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.