The lists:

* Representative

The lists must be representative of how people talk on Twitter about each issue. This means that they must not be skewed towards any particular sub-topic, and must be broad enough to cover the general arena.

* Discriminatory

The list words must be narrow enough to discriminate tweets with some certainty. Some words in themselves might not indicate that the tweet is relevant to the issue. For example, #activism may include tweets about other campaigns. The identifying process must take this into account.

* Equally rigorous in Hindi/English for a given topic:

It is important that the four lists (Hindi, English, transliterated Hindi into Roman script, transliterated English in Devanagri script) are **equally** comprehensive. Since we are studying relative uses of Hindi and English, it will skew the results if, say, the English list is weaker, i.e. less catching, than the Hindi one.

* Equally rigorous across topics:

Similar to the above point – we are making a comparative study, and so require that the caste-concerns lists and the gender-concerns lists are equally catching to avoid bias in the results as much as possible.

There are two categories of words:

Primary list: words/phrases that, standalone, can be assumed to indicate that the tweet in which they appear concerns the particular discussion. For example, #dalit, #feminism, #genderequality.

Secondary list: words which must appear with at least one supporting word to be indicative of a particular discussion. For example, ‘domestic’ and ‘violence’ must appear together in a tweet for it to indicate a discussion on women’s rights.[[1]](#footnote-1)

How do we know that the lists are rigorous?

or rather,

How do we know that the relative rigour of the Hindi and English lists is the same?

How sure can we be that the tweet identified concerns the target topic?

What about out-of-topic tweets? Is it okay to include them in our analysis?

These lists are not comprehensive, of course, as identifiers for discussions on either of the topics.

Keyword Extraction:

Essentially, we are claiming that a given list of words comprises a set of keywords for a given discussion. Based on this assumption, we are statistically analyzing the incidence of these keywords in Hindi and English. A more data-based approach to the same problem would be the creation of the lists by a keyword extraction model that can process code-mixed data and create a Hindi-English combined list of keywords. This is as yet unavailable to us; we have done this task manually.

This comes with its risks. There are certainly keywords that we are missing. We may possibly be missing different numbers of these in Hindi and English which will bias the results. For example, in a tweet:

Brahman Baniya media was and is always against the rights of [#**Bahujan**](https://twitter.com/hashtag/Bahujan?src=hash) Rather acting as fourth pillar of democracy,it acted as slave of [#BrahmincalPatriarchy](https://twitter.com/hashtag/BrahmincalPatriarchy?src=hash) [@htTweets](https://twitter.com/htTweets) atrocious manuwadi mindset

Iske khilaaph avaaz uthaiye morcha lagaiyye

Suppose we had not identified ‘morcha’ as a Hindi-list keyword, we would overlook the key-contribution of the last Hindi sentence to the overall tweet (although it would appear, of course, in run length analysis).

Stemming, case normalization, punctuation:

We will be using the nltk package for this.

<https://www.datacamp.com/community/tutorials/stemming-lemmatization-python>

<https://machinelearningmastery.com/clean-text-machine-learning-python/>

Process:

Manually identify conversations. Search Hindi-English terms in conjunction: e.g. ‘aurat #honour killing’.

**Q:** How rigorous or biased is the corpus we get?

Now identify

1. Simple percentages
2. Significant keywords: English list, Hindi list, for each topic. Compare for caste vs. feminism. **Q:** How equivalent are these two lists?
3. Now nuance this. Pick up specific terms: honour killing as it appears in hindi text, and liberation as it appears in hindi text. The first is culturally entrenched, will appear more. Similarly for caste.

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429 errors: Too many requests per minute. Only collecting about 5 tweets for one word combination (a pretty catching one at that).

No handlers found for logger tweepy.binder

Reading and searching Hindi terms: UTF-18 encoding not working –

Non-ASCII character '\xe0' in file scraper.py on line 21, but no encoding declared; see http://python.org/dev/peps/pep-0263/ for details

The problem, still, is just collecting the data.

20/3

Suddenly, it is working. For ‘dalit’. (single term search)

Problems:

1. RTs (ignore?((Nobody will know)))
2. Repetition across search terms (Soln: search combinations, reducing the probability of repeated terms, since 4 terms are not going to appear)
3. Searching Hindi keywords (AASCII)

Not all combinations are will yield relevant results.

To do:

**Create these combinations.**

1. Trigger/ non-trigger.

Get ER. Convert to ED. Translate non-nouns to HD. Supplement and finalize HD. Convert to HR.

1. mainly, although it may also be discussing domestic violence against men, of course. Our approach to the incidence of the latter, that would result in an ‘out-of-topic’ tweet, is mentioned below [↑](#footnote-ref-1)