

# Attitudes towards Cultural Heritage on Twitter: The 2015 Nepal Earthquake

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## Introduction

In the recent years, the role of social media in disaster management has gained tremendous attention regarding the ways in which information is created, distributed, collected, processed and utilised. However, what remains un-investigated is the role of social media in the context of cultural heritage (CH) during such events.

This paper attempts to understand information seekers (IS) and information providers' (IP) attitude towards cultural heritage on twitter during Nepal earthquake 2015. The IS were actively seeking data regarding CH using #heritagedamagenepal and #culturedamagenepal. The IP, whereas, tweeted using many other #hashtags and keyword.

This research will help in development of framework and recommendations for future data collection and analysis of tweets during cultural heritage disasters.

## Research Questions and Data Collection

S.No	Time Frame	Search Criteria	Type	No.
1	26 April 2015 - 13 June 2015	#heritagedamagenepal	IS	71
2	26 April 2015 – 2 May 2015	#culturedamagenepal	IS	12
3	25 April 2015- 28 Sept 2016	#Nepal earthquake, Heritage	IP	449

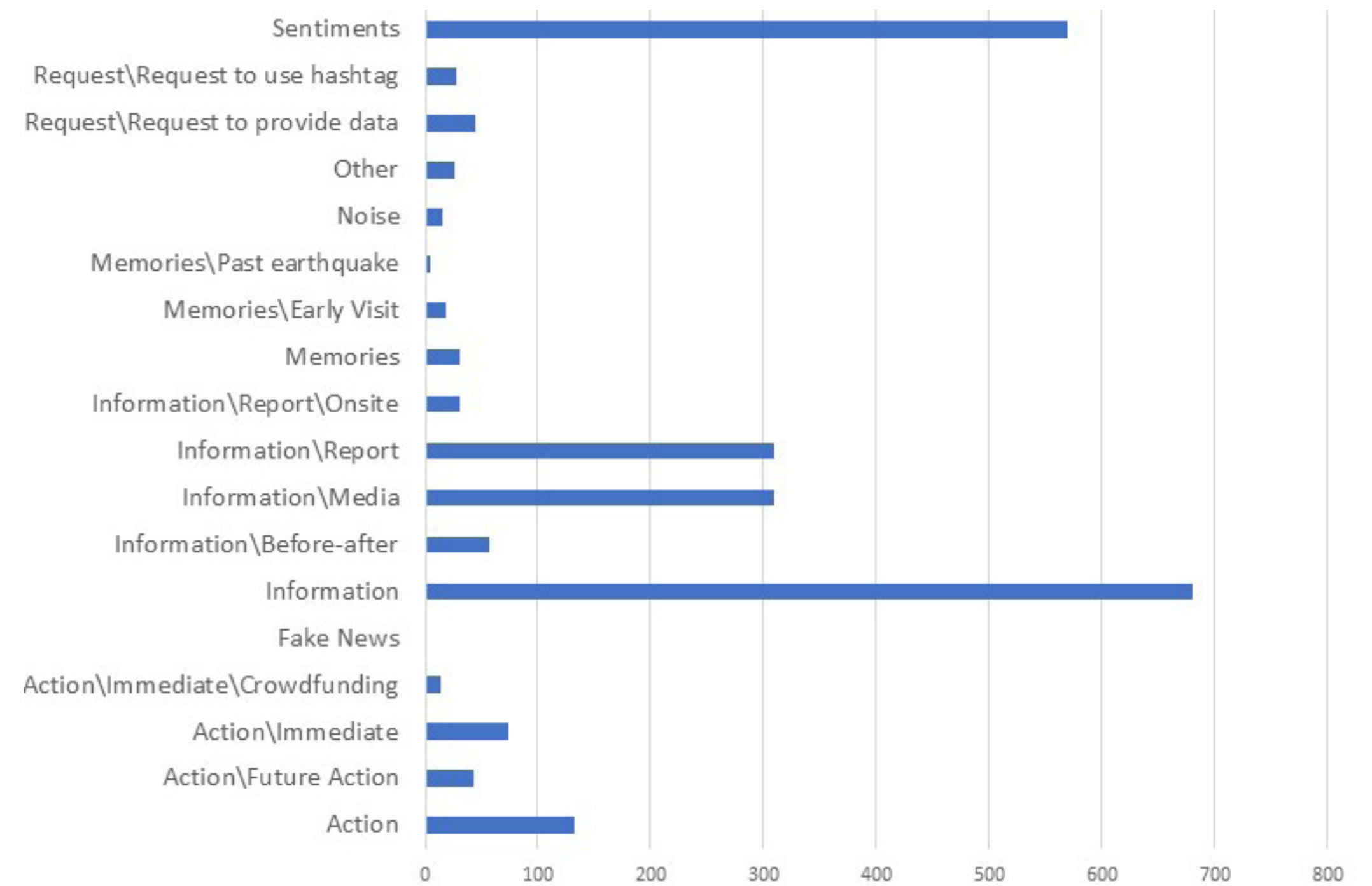
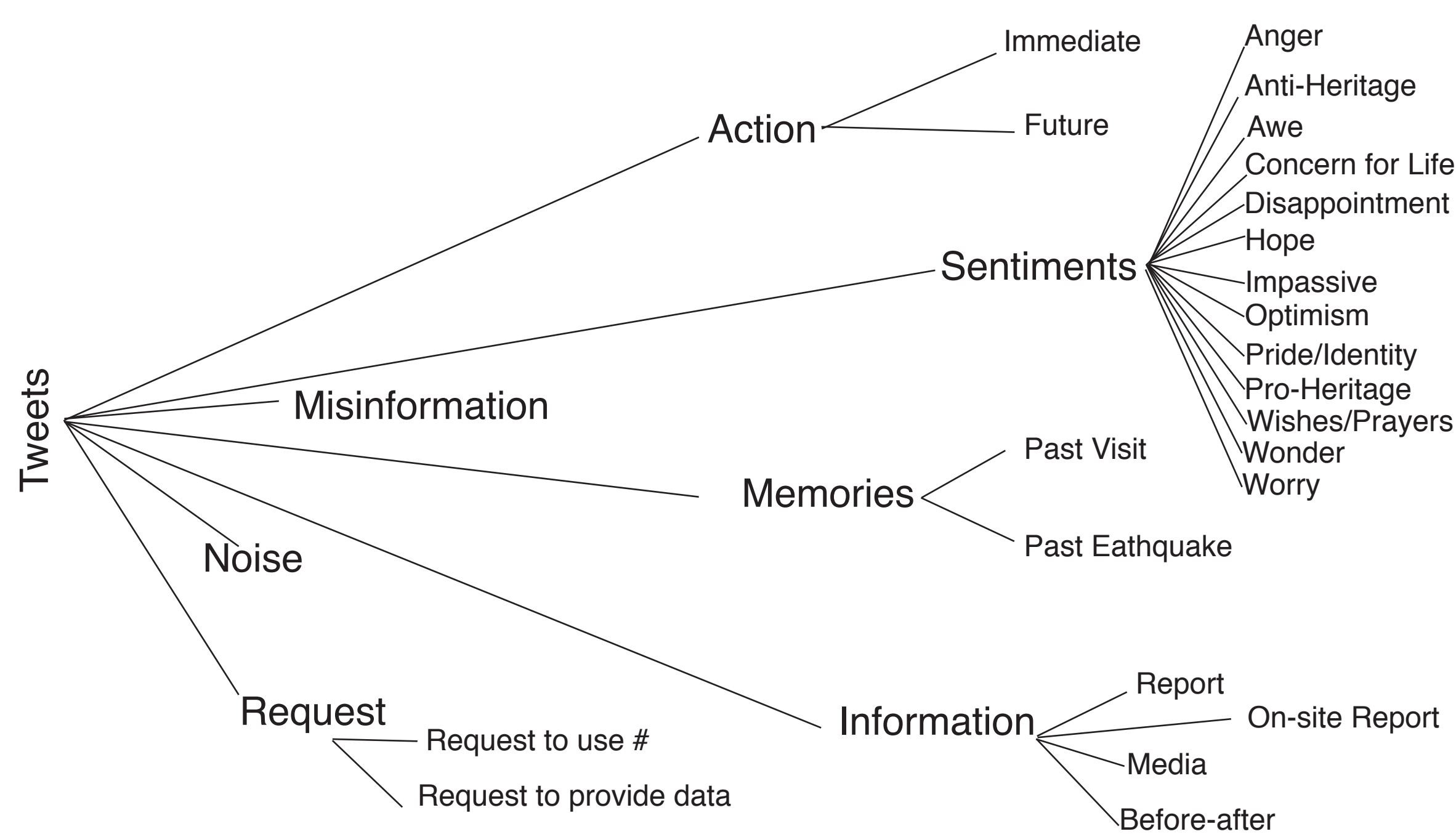
**RQ 1** What are different post types regarding cultural heritage on twitter during Nepal earthquake 2015?

**RQ 2** What are the keywords and word categories used by IS and IP to discuss cultural heritage on twitter during Nepal earthquake 2015?

**RQ 3** What type of emotions were common in tweets of IS and IP?

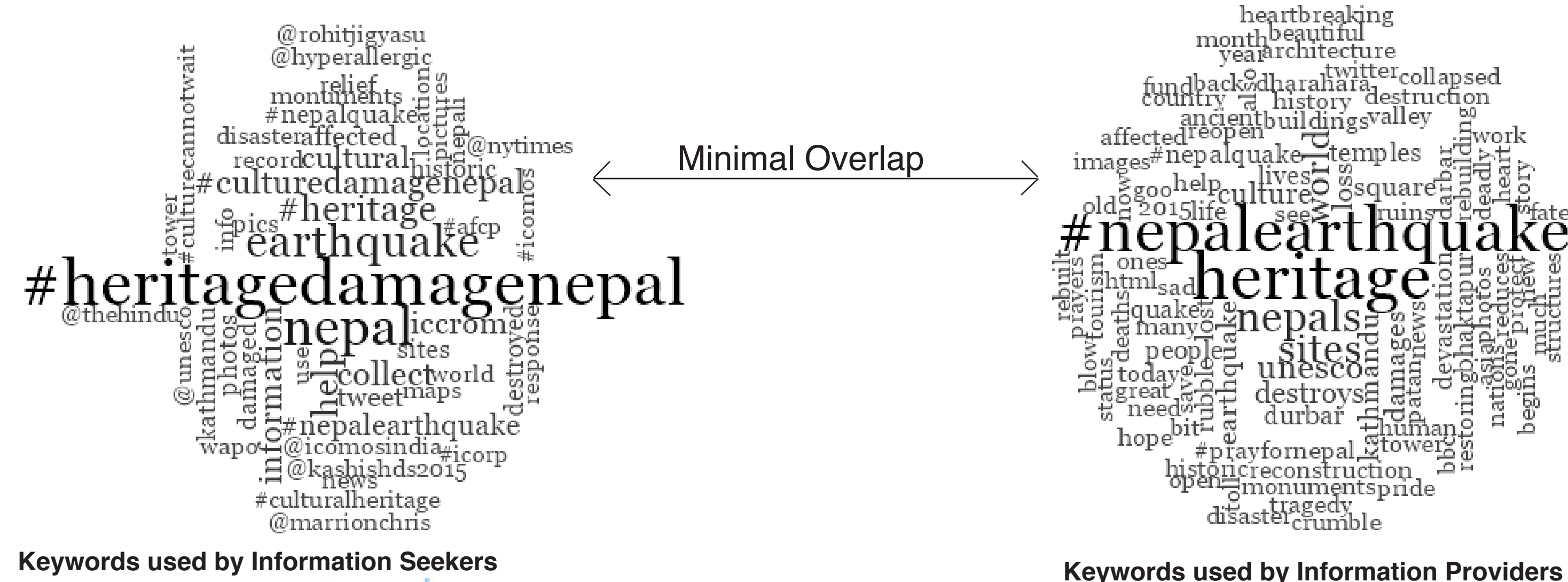
The analysis was supported by software Nvivo. The results of this analysis will be tested on 200,108 tweets collected during the same event.

## [RQ1] Post Types



Types of tweets by Information Seekers and Information Providers

## [RQ2] Keywords and Word Categories



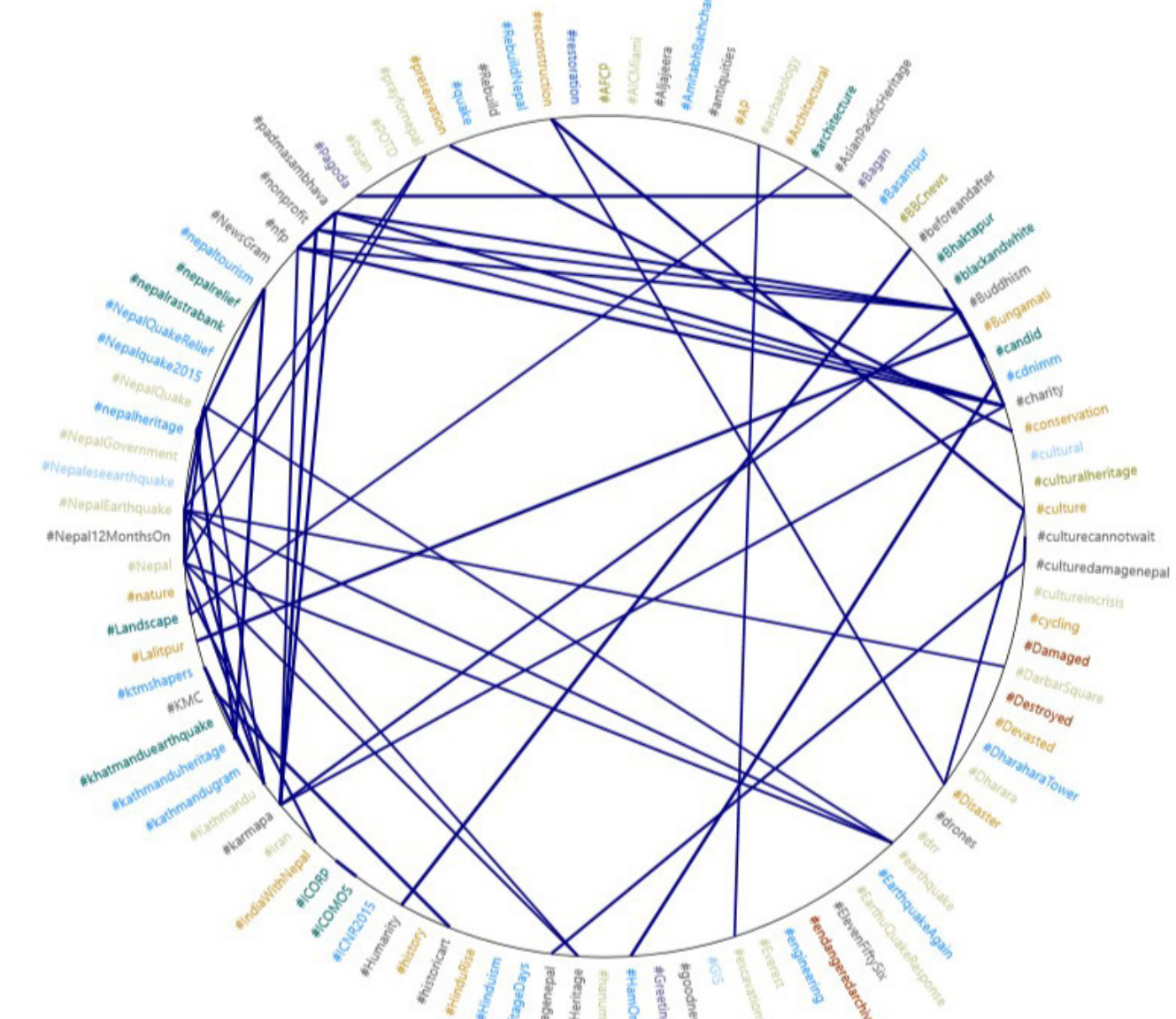
Keywords used by Information Seekers

Keywords used by Information Providers

The keywords can be grouped together under the following broad categories:

- 1) Site name (e.g. Darbar Square)
- 2) Hashtags (e.g. #heritage)
- 3) Mentions (e.g. @satedept)
- 4) Organisations (e.g. UNESCO)
- 5) Situational Words (e.g. damaged)
- 7) Sentimental Words (e.g. :( or sad)
- 8) Location (e.g. Kathmandu)
- 9) Designations (e.g. World Heritage)

These categories are useful for information seeking in future events.



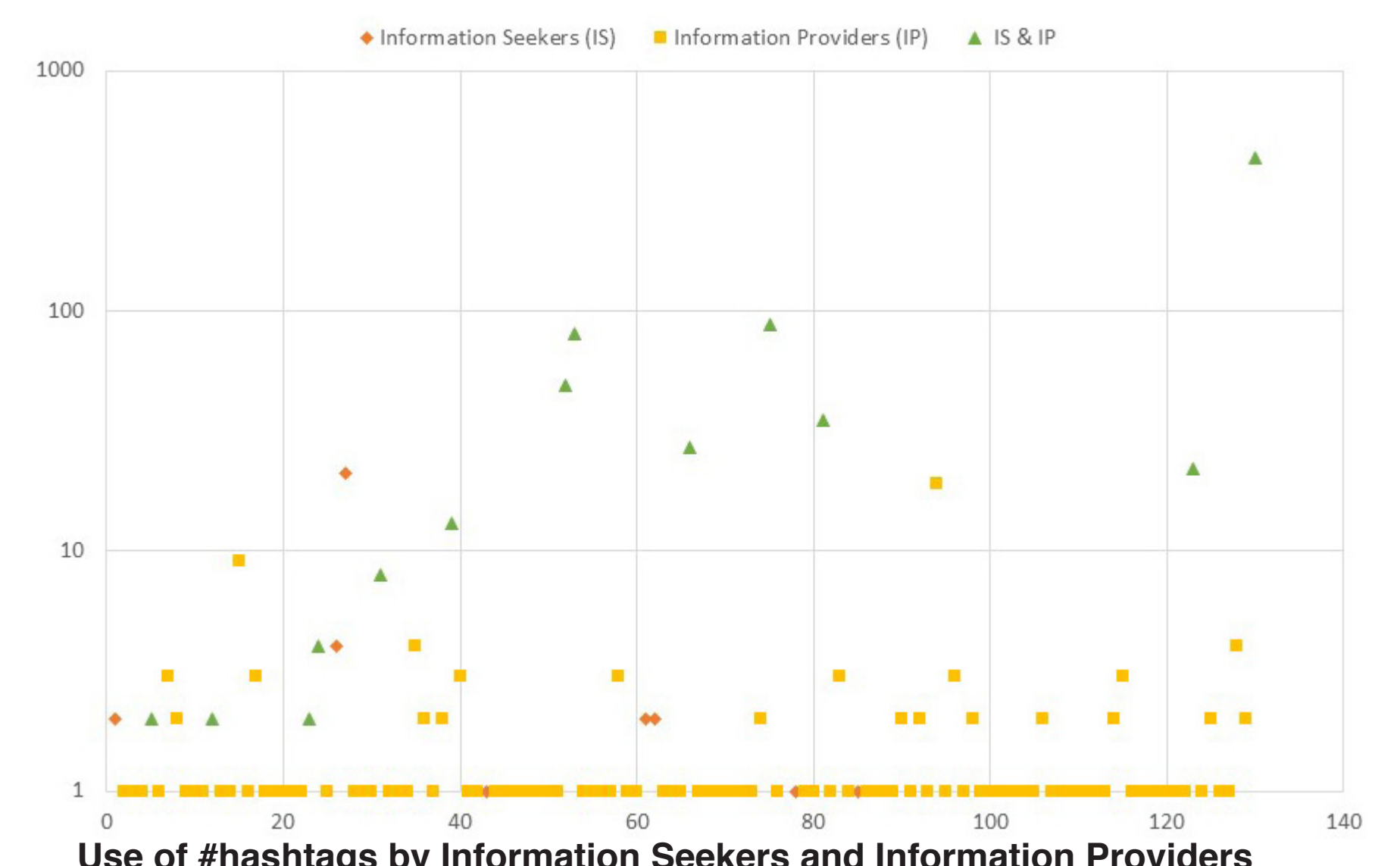
#hashtags clustered by Word Similarity

130 unique #hashtags were used by IS and IP.

Many #hashtags were used only once.

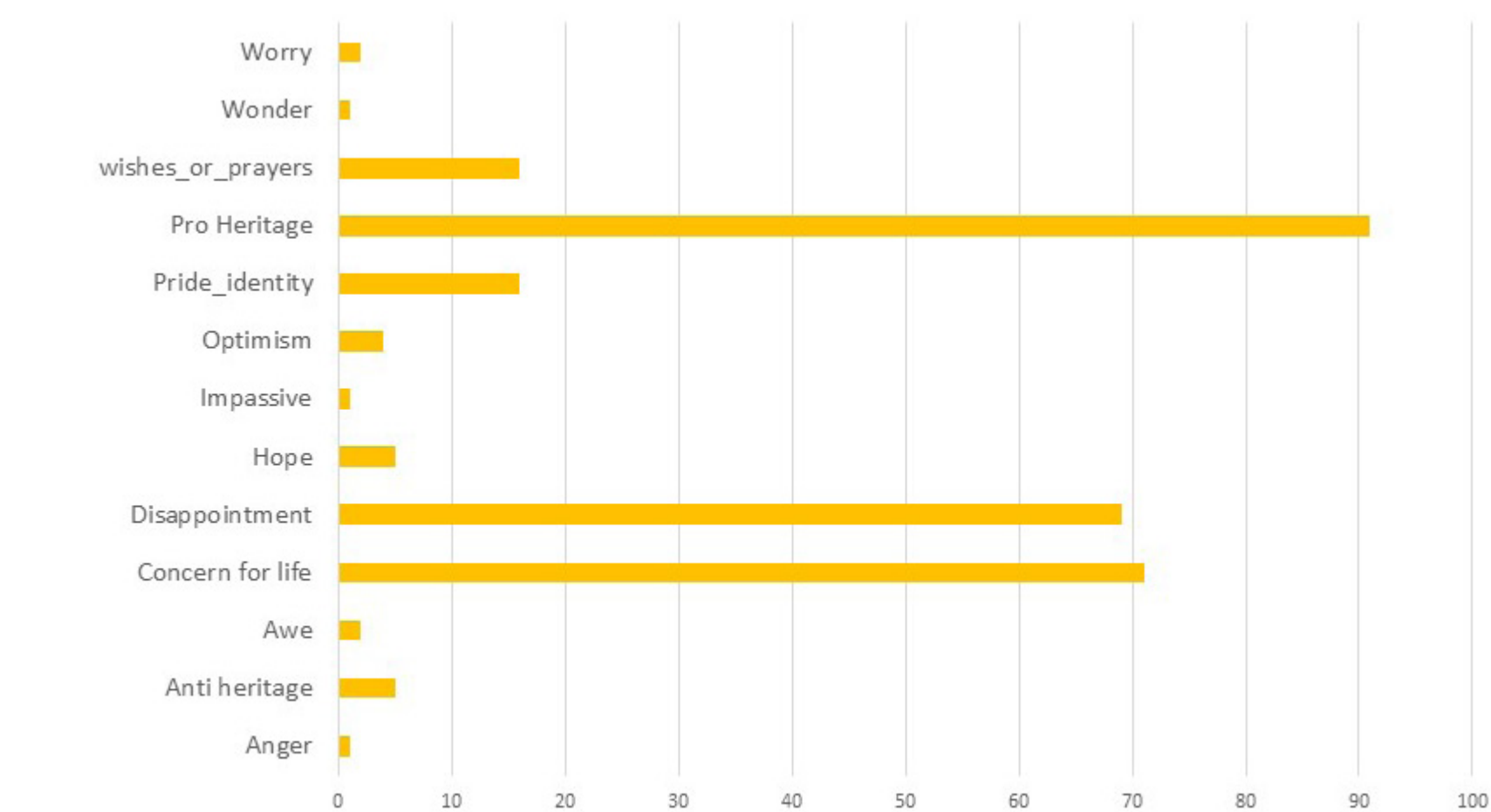
The popular #hashtags were used by both IS and IP.

Both IS and IP use #hashtags familiar to them or according to expected audience for a tweet or according to generic platform behavior (e.g. Instagram).

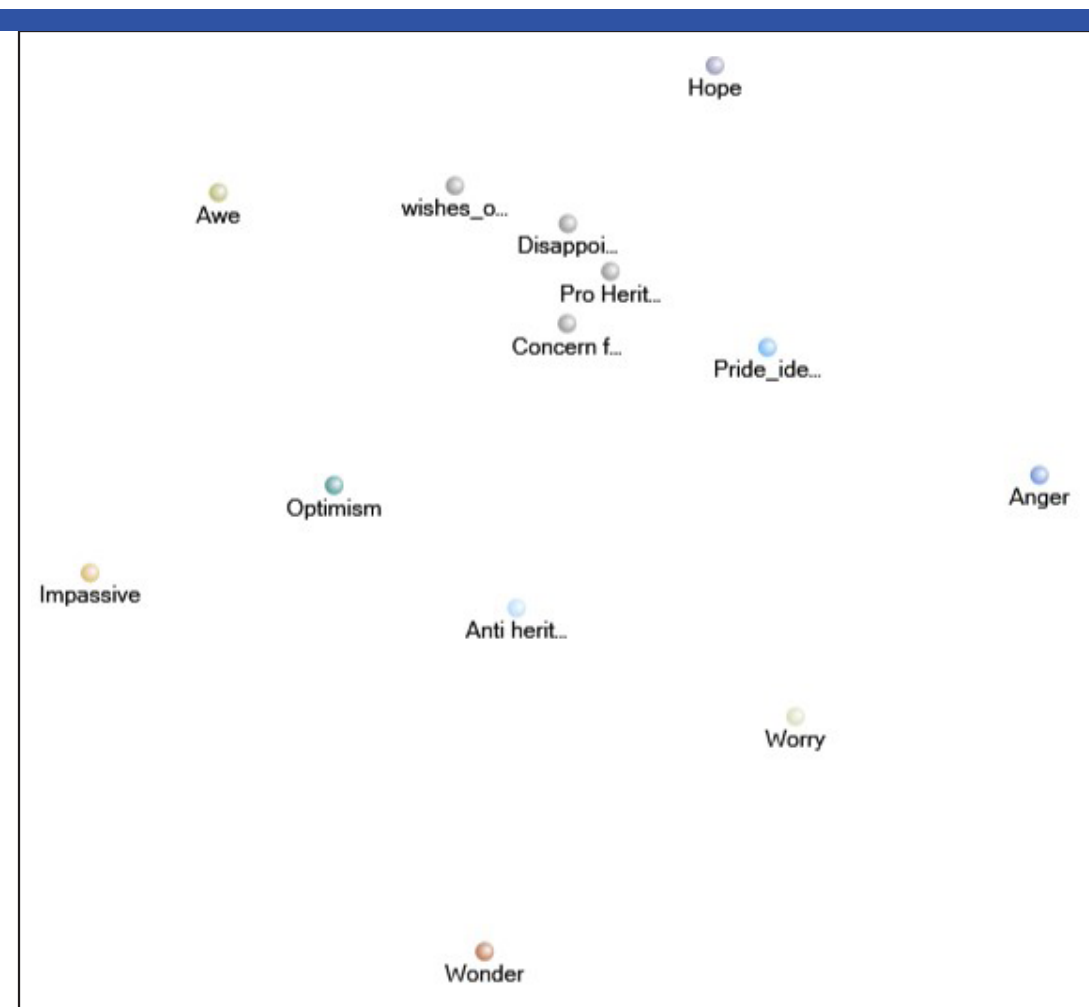


Use of #hashtags by Information Seekers and Information Providers

## [RQ3] Sentiment Analysis



Types of sentiments found in IP tweets



Sentiments clustered by Word Similarity

IP posted sentiments whereas IS did not express any emotion.

A wide range of emotional words were used by IP.

Only a small no. of IP are offended by 'concern for heritage', majority of IP care for heritage.

Concern of heritage and life co-exist in majority of the tweets.