In [2]:

```
import numpy as np
import pandas as pd
import matplotlib.pyplot as plt
from textblob import TextBlob
import plotly.graph_objects as go
```

In [3]:

```
trs = pd.read_excel("C:/Users/lenovo/Desktop/ghmc_trs.xlsx")
```

In [4]:

```
bjp = pd.read_excel("C:/Users/lenovo/Desktop/ghmc_bjp.xlsx")
```

In [5]:

```
aimim = pd.read_excel("C:/Users/lenovo/Desktop/ghmc_AIMIM.xlsx")
```

In [6]:

```
bjp = bjp.drop(columns = ['From-User-Id','To-User','To-User-Id','Geo-Location-Latitude','Geo-Location-Longitude','Id'
])
```

In [7]:

```
aimim = aimim.drop(columns = ['From-User-Id','To-User','To-User-Id','Geo-Location-Latitude','Geo-Location-Longitude',
'Id'])
trs = trs.drop(columns = ['From-User-Id','To-User','To-User-Id','Geo-Location-Latitude','Geo-Location-Longitude','Id'
])
```

In [8]:

```
bjp.loc[:,'condidat'] = 'bjp'
trs.loc[:,'condidat'] = 'trs'
aimim.loc[:,'condidat'] = 'aimim'
```

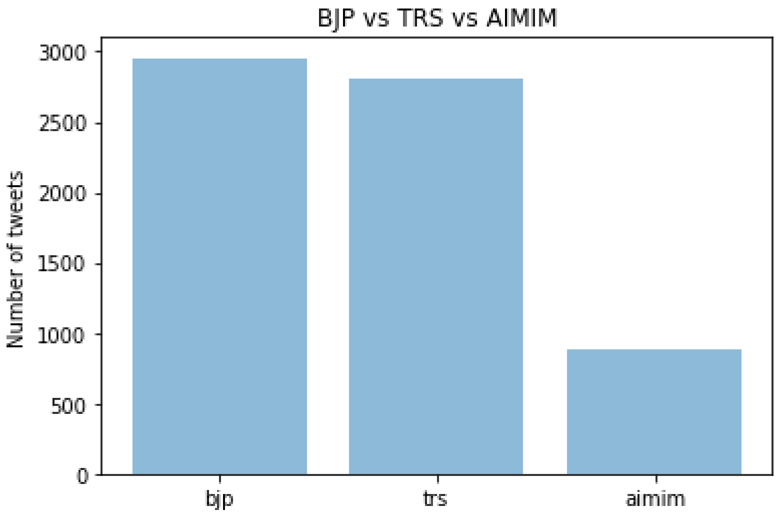
In [9]:
```
Data_Mixed = pd.concat([bjp,trs,aimim])
Data_Mixed.sort_values(by='Created-At')
Data_Mixed.head()
```

Out[9]:

	Created-At	From-User	Language	Source	Text	Retweet-Count	condidat
0	2020-12-04 10:36:31	Konda Vishweshwar Reddy	en	<a href="http://twitter.com/download/android" ...	Postal ballots reflect the opinion of the empl...	120	bjp
1	2020-12-04 10:27:33	ANI	en	<a href="https://mobile.twitter.com" rel="nofo...	The transformation has started in the state of...	54	bjp
2	2020-12-04 11:44:12	OpIndia.com	en	<a href="https://about.twitter.com/products/tw...	Early trends show BJP leading in 88 seats in H...	58	bjp
3	2020-12-04 12:31:42	Kali Yuga ????????????	en	<a href="http://twitter.com/download/android" ...	@SheetalPronamo @ashishjaggi_1 The agression w...	0	bjp
4	2020-12-04 12:31:38	Priyarag Verma	en	<a href="http://twitter.com/download/android" ...	GHMC Election Results 2020 trends from ballot ...	0	bjp

In [10]:

```
Bjp_tweets = Data_Mixed.query('(condidat == "bjp")').Text.sort_values(ascending=False).count()
Trs_tweets = Data_Mixed.query('(condidat == "trs")').Text.sort_values(ascending=False).count()
Aimim_tweets = Data_Mixed.query('(condidat == "aimim")').Text.sort_values(ascending=False).count()

objects = ('bjp','trs','aimim')
y_pos = np.arange(len(objects))
performance = [Bjp_tweets,Trs_tweets,Aimim_tweets]

plt.bar(y_pos, performance, align='center', alpha=0.5)
plt.xticks(y_pos, objects)
plt.ylabel('Number of tweets')
plt.title('BJP vs TRS vs AIMIM')

plt.show()
```



In [11]:

```
import re

def clean(text):
    '''Make text lowercase, remove text in square brackets,remove links,remove punctuation
    and remove words containing numbers.'''
    text = str(text).lower()
    text = re.sub('\[.*?\]', '', text)
    text = re.sub('https?://\S+|www\.\S+', '', text)
    text = re.sub('<.*?>+', '', text)
    text = re.sub('\n', '', text)
    text = re.sub('\w*\d\w*', '', text)
    text=re.sub(r'@[A-Za-z0-9]+','',text)
    text=re.sub(r'#','',text)
    text=re.sub(r'RT[\s]+','',text)
    text=re.sub(r'[^\w]', ' ', text)
    return text
```

In [12]:

```
# create fuction to get the subjectivity and polarity
def getSubjectivity(text):
    return TextBlob(text).sentiment.subjectivity
def getPolarity(text):
    return TextBlob(text).sentiment.polarity
def getAnalysis(score):
    if score < 0:
        return 'negative'
    elif score== 0.0:
        return 'neutral'
    else:
        return 'positive'
```

In [13]:

```
BJP_Tweets = Data_Mixed.query('(condidat == "bjp")').sort_values('Retweet-Count',ascending = False).drop_duplicates([
'From-User'])[['Text']]

BJP_Tweets.reset_index(inplace = True, drop = True)

BJP_Tweets['ClearTweet'] = BJP_Tweets['Text'].apply(clean)

BJP_Tweets['subjectivity']= BJP_Tweets['ClearTweet'].apply(getSubjectivity)
BJP_Tweets['polarity']     = BJP_Tweets['ClearTweet'].apply(getPolarity)
BJP_Tweets['analysis']     = BJP_Tweets['polarity'].apply(getAnalysis)
BJP_Tweets.head()


BJP_Tweets.head()
```

Out[13]:

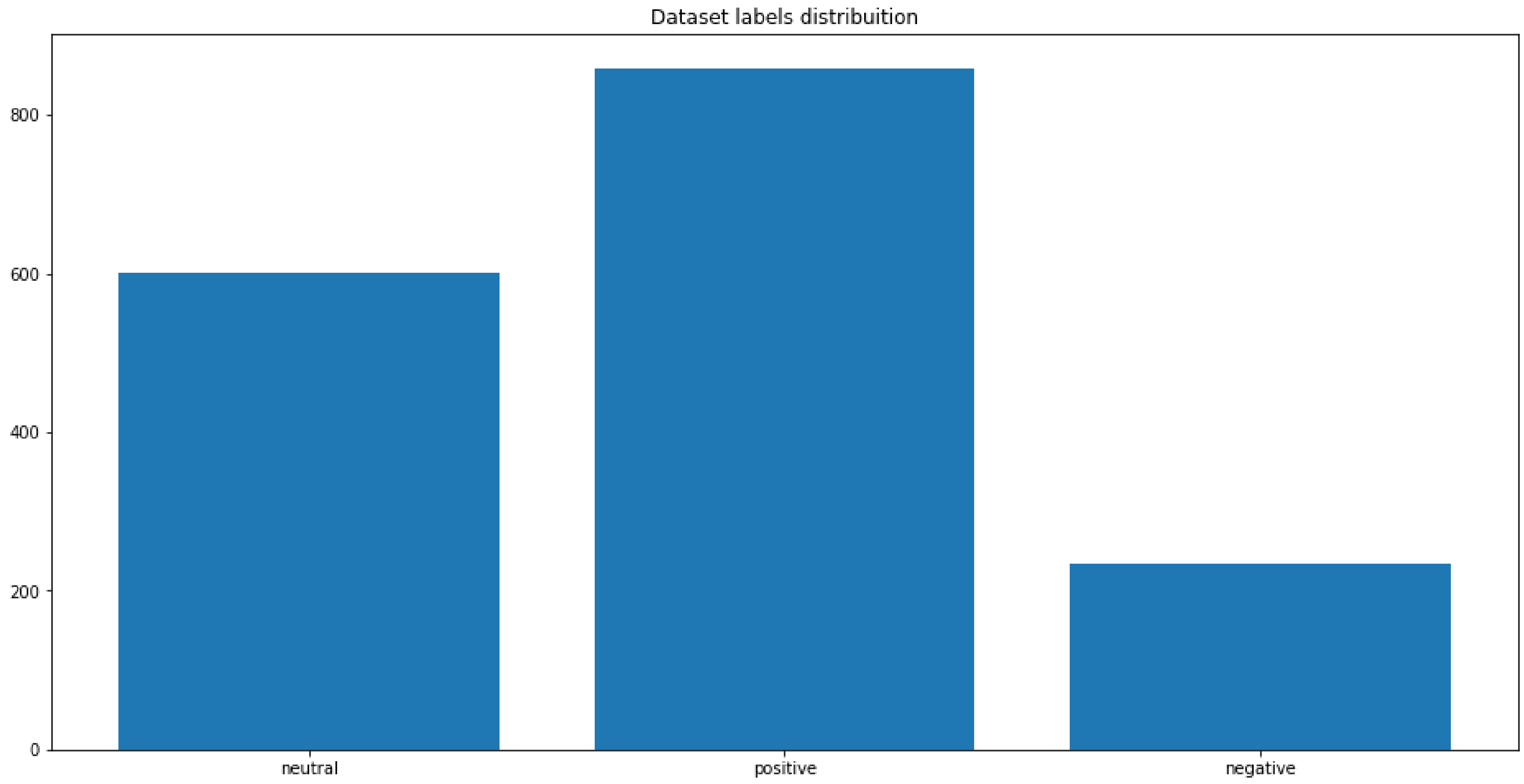
	Text	ClearTweet	subjectivity	polarity	analysis
0	Dastardly attack on @BJP4Telangana Pres. @band...	dastardly attack on pres _bjp by trs mim go...	1.000000	0.000000	neutral
1	A local election with national implications. A...	a local election with national implications a...	0.000000	0.000000	neutral
2	#Thread : BJP and the need for the saffron par...	thread bjp and the need for the saffron part...	0.450000	0.650000	positive
3	BJP HYDERABAD GHMC PROMISES\n\n1. Free Electri...	bjp hyderabad ghmc free electricity till ...	0.683333	0.333333	positive
4	LIVE: My statement from Police Station on pre-...	live my statement from police station on pre ...	0.750000	0.068182	positive

In [14]:

```
BJP_Tweets.polarity = BJP_Tweets.polarity.apply(lambda x: getAnalysis(x))
```

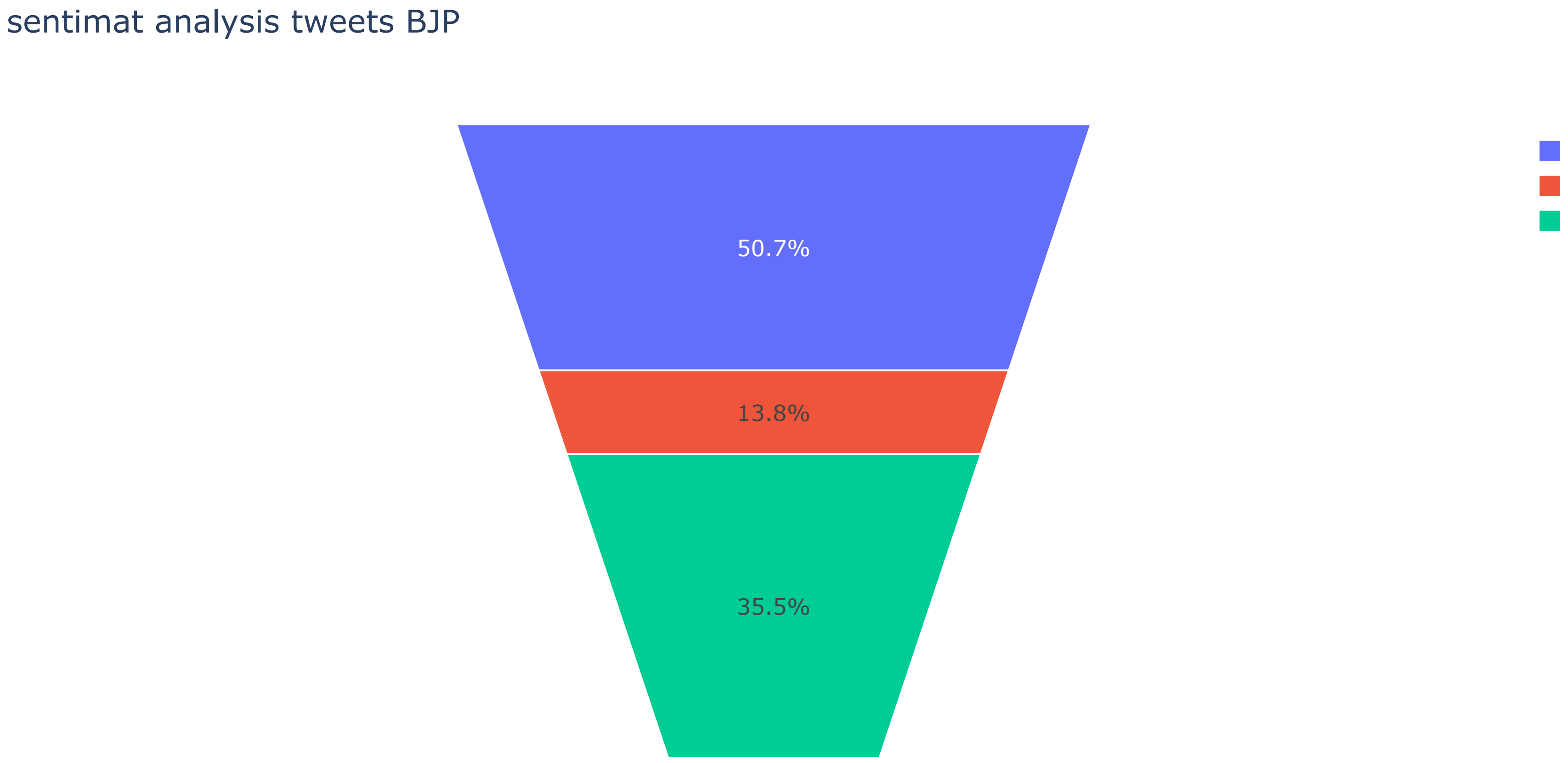
In [15]:
```
from collections import Counter

target_cnt = Counter(BJP_Tweets.polarity)

plt.figure(figsize=(16,8))
plt.bar(target_cnt.keys(), target_cnt.values())
plt.title("Dataset labels distribuition")
```

Out[15]:
```
Text(0.5, 1.0, 'Dataset labels distribuition')
```



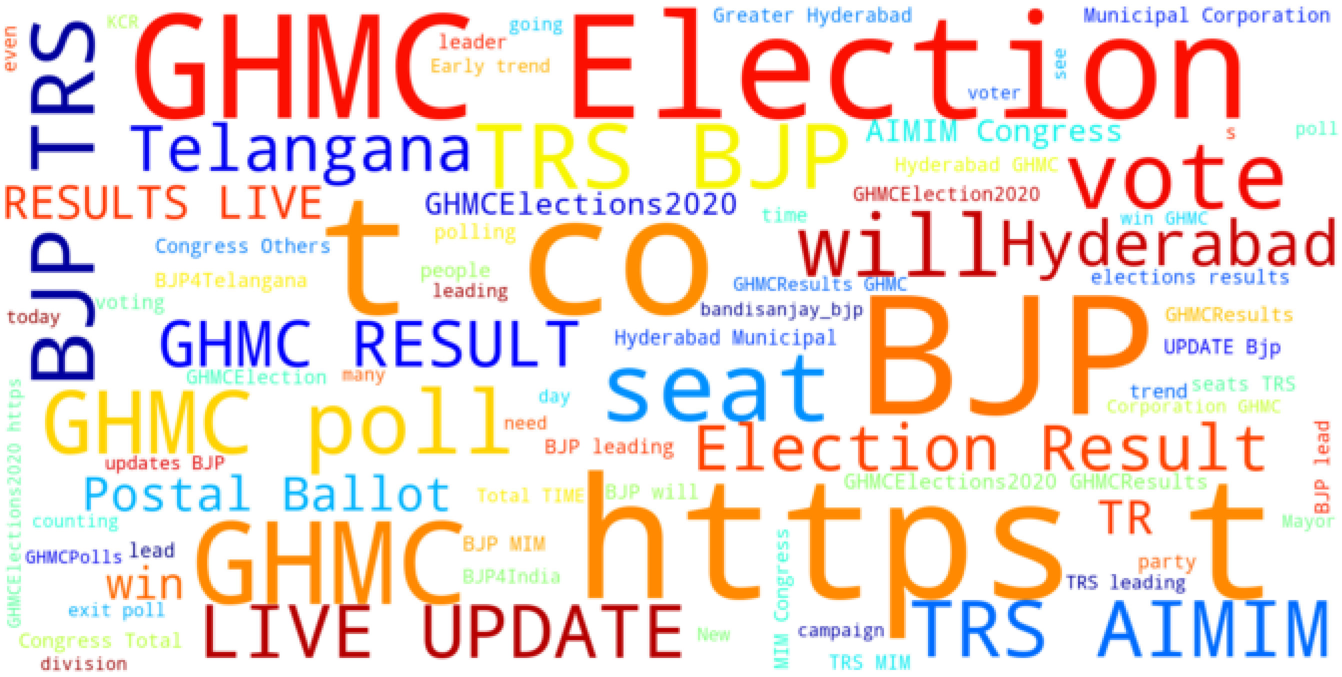
In [16]:

```
general  = BJP_Tweets.groupby('analysis').analysis.count()
neutral  = BJP_Tweets[BJP_Tweets['analysis'] == 'neutral'].ClearTweet.count()
positive = BJP_Tweets[BJP_Tweets['analysis'] == 'positive'].ClearTweet.count()
negative = BJP_Tweets[BJP_Tweets['analysis'] == 'negative'].ClearTweet.count()

fig = go.Figure(data = [go.Funnelarea(labels = ["positivity","negativity","neutrality"], values = [positive,negative,n
eutral])])
fig.update_layout(title_text ='sentimat analysis tweets BJP')
fig.show()
```



sentimat analysis tweets BJP

In [40]:
```
from wordcloud import WordCloud, STOPWORDS, ImageColorGenerator
def word_cloud(wd_list):
    stopwords = set(STOPWORDS)
    all_words = ' '.join([text for text in wd_list])
    wordcloud = WordCloud(
        background_color='white',
        stopwords=stopwords,
        width=1600,
        height=800,
        random_state=1,
        colormap='jet',
        max_words=80,
        max_font_size=200).generate(all_words)
    plt.figure(figsize=(12, 10))
    plt.axis('off')
    plt.imshow(wordcloud, interpolation="bilinear");
word_cloud(bjp['Text'][0:1000])
```



In [21]:

```
TRS_Tweets = Data_Mixed.query('(condidat == "trs")').sort_values('Retweet-Count',ascending = False).drop_duplicates([
'From-User'])[['Text']]

TRS_Tweets.reset_index(inplace = True, drop = True)

TRS_Tweets['ClearTweet'] = TRS_Tweets['Text'].apply(clean)

TRS_Tweets['subjectivity']= TRS_Tweets['ClearTweet'].apply(getSubjectivity)
TRS_Tweets['polarity']    = TRS_Tweets['ClearTweet'].apply(getPolarity)
TRS_Tweets['analysis']    = TRS_Tweets['polarity'].apply(getAnalysis)
TRS_Tweets.head()


TRS_Tweets.head()
```

Out[21]:

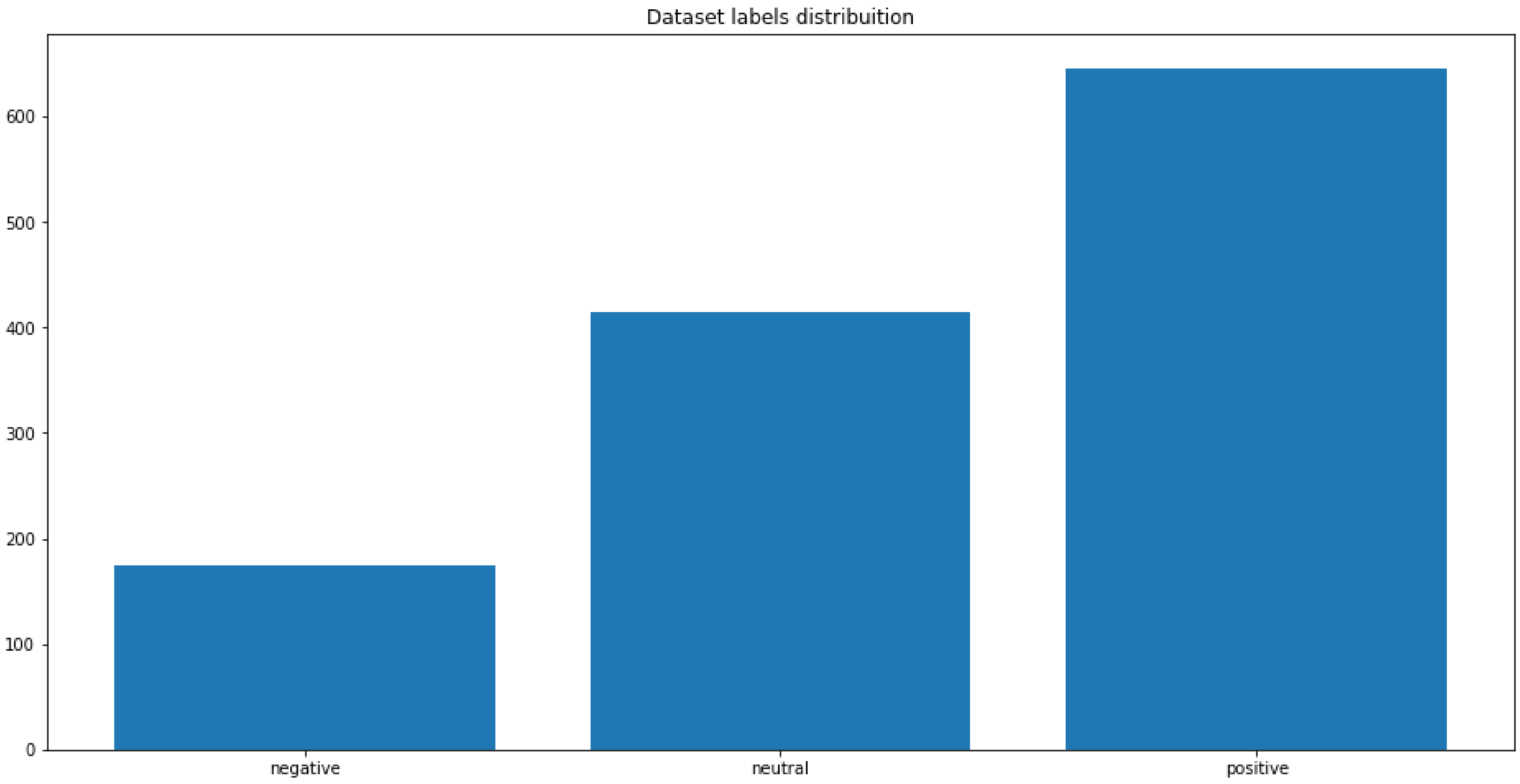
	Text	ClearTweet	subjectivity	polarity	analysis
0	Massive distribution of money in different par...	massive distribution of money in different par...	0.866667	-0.266667	negative
1	HM Amit Shah is holding a roadshow for the cru...	hm amit shah is holding a roadshow for the cru...	1.000000	0.000000	neutral
2	Home Minister @AmitShah will be in Secunderaba...	home minister will be in secunderabad holding...	1.000000	-0.250000	negative
3	The TRS MIM-led GHMC is interested only in new...	the trs mim led ghmc is interested only in new...	0.531602	0.183766	positive
4	A local election with national implications. A...	a local election with national implications a...	0.000000	0.000000	neutral

In [22]:

```
TRS_Tweets.polarity = TRS_Tweets.polarity.apply(lambda x: getAnalysis(x))
```

In [23]:
```
from collections import Counter

target_cnt = Counter(TRS_Tweets.polarity)

plt.figure(figsize=(16,8))
plt.bar(target_cnt.keys(), target_cnt.values())
plt.title("Dataset labels distribuition")
```

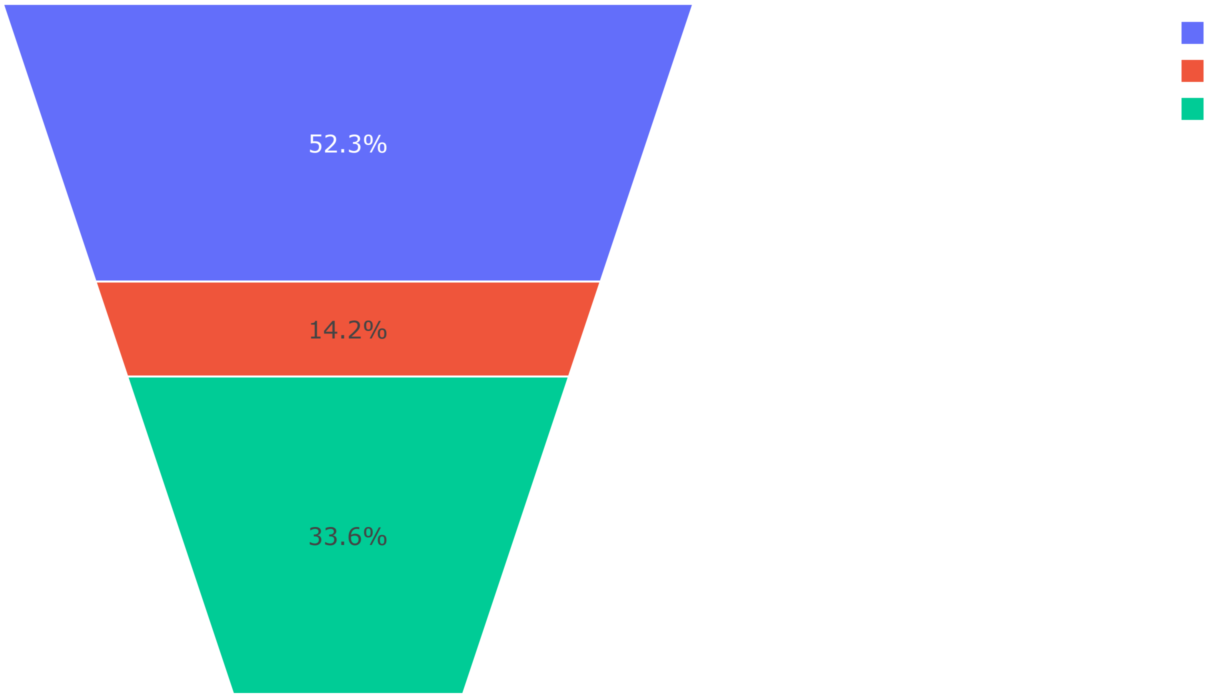
Out[23]:
```
Text(0.5, 1.0, 'Dataset labels distribuition')
```



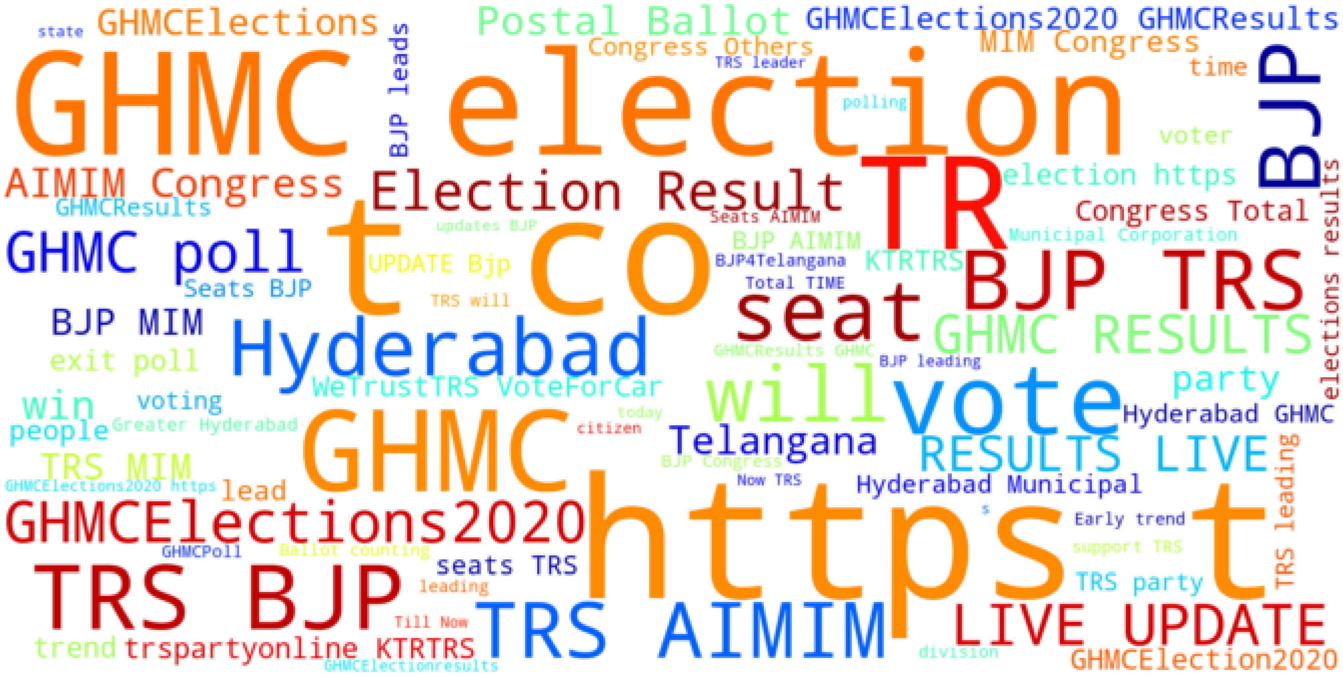
In [25]:

```
general  = TRS_Tweets.groupby('analysis').analysis.count()
neutral  = TRS_Tweets[TRS_Tweets['analysis'] == 'neutral'].ClearTweet.count()
positive = TRS_Tweets[TRS_Tweets['analysis'] == 'positive'].ClearTweet.count()
negative = TRS_Tweets[TRS_Tweets['analysis'] == 'negative'].ClearTweet.count()

fig = go.Figure(data = [go.Funnelarea(labels = ["positivity","negativity","neutrality"], values = [positive,negative,neutral])])
fig.update_layout(title_text ='sentimat analysis tweets TRS')
fig.show()
```

sentimat analysis tweets TRS



```
In [39]: from wordcloud import WordCloud, STOPWORDS, ImageColorGenerator
         def word_cloud(wd_list):
             stopwords = set(STOPWORDS)
             all_words = ' '.join([text for text in wd_list])
             wordcloud = WordCloud(
                 background_color='white',
                 stopwords=stopwords,
                 width=1600,
                 height=800,
                 random_state=1,
                 colormap='jet',
                 max_words=80,
                 max_font_size=200).generate(all_words)
             plt.figure(figsize=(12, 10))
             plt.axis('off')
             plt.imshow(wordcloud, interpolation="bilinear");
         word_cloud(trs['Text'][0:1000])
```



In [26]:

```
AIMIM_Tweets = Data_Mixed.query('(condidat == "aimim")').sort_values('Retweet-Count',ascending = False).drop_duplicates(['From-User'])[['Text']]

AIMIM_Tweets.reset_index(inplace = True, drop = True)

AIMIM_Tweets['ClearTweet'] = AIMIM_Tweets['Text'].apply(clean)

AIMIM_Tweets['subjectivity']= AIMIM_Tweets['ClearTweet'].apply(getSubjectivity)
AIMIM_Tweets['polarity']    = AIMIM_Tweets['ClearTweet'].apply(getPolarity)
AIMIM_Tweets['analysis']    = AIMIM_Tweets['polarity'].apply(getAnalysis)
AIMIM_Tweets.head()


AIMIM_Tweets.head()
```

Out[26]:

	Text	ClearTweet	subjectivity	polarity	analysis
0	HM Amit Shah is holding a roadshow for the cru...	hm amit shah is holding a roadshow for the cru...	1.000000	0.000000	neutral
1	AIMIM President Barrister @asadowaisi in conve...	aimim president barrister in conversation wit...	0.000000	0.000000	neutral
2	As polling day approaches it’s clearly a battl...	as polling day approaches it s clearly a battl...	0.670833	0.187500	positive
3	A BJP leader y'day said BJP will do a surgical...	a bjp leader y day said bjp will do a surgical...	0.300000	0.178788	positive
4	GHMC polls: Raja Singh offers Asaduddin Owaisi...	ghmc polls raja singh offers asaduddin owaisi...	0.375000	0.275000	positive

In [27]:

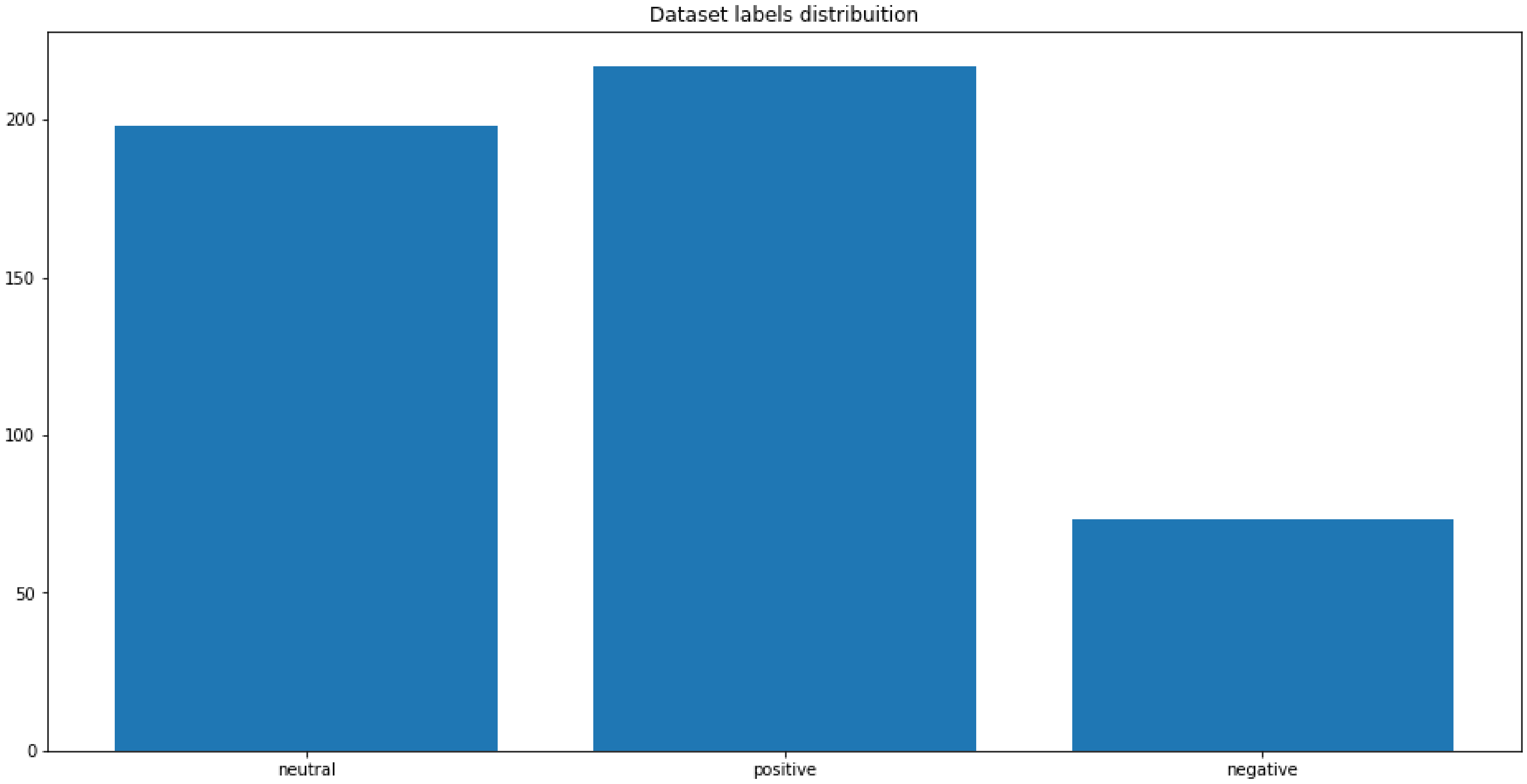
```
AIMIM_Tweets.polarity = AIMIM_Tweets.polarity.apply(lambda x: getAnalysis(x))
```

In [28]:

```
from collections import Counter

target_cnt = Counter(AIMIM_Tweets.polarity)

plt.figure(figsize=(16,8))
plt.bar(target_cnt.keys(), target_cnt.values())
plt.title("Dataset labels distribuition")
```

Out[28]:

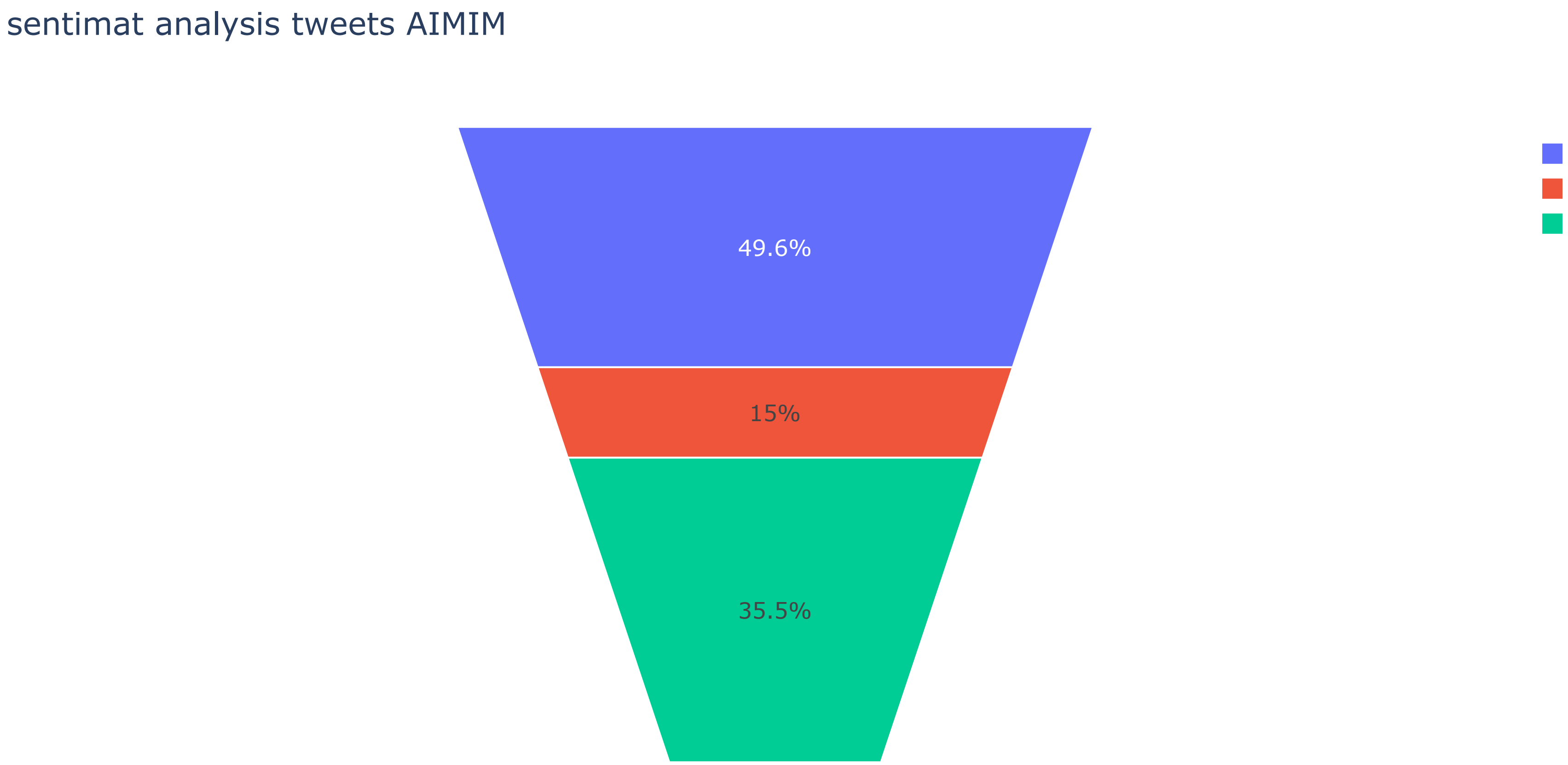
```
Text(0.5, 1.0, 'Dataset labels distribuition')
```



In [30]:

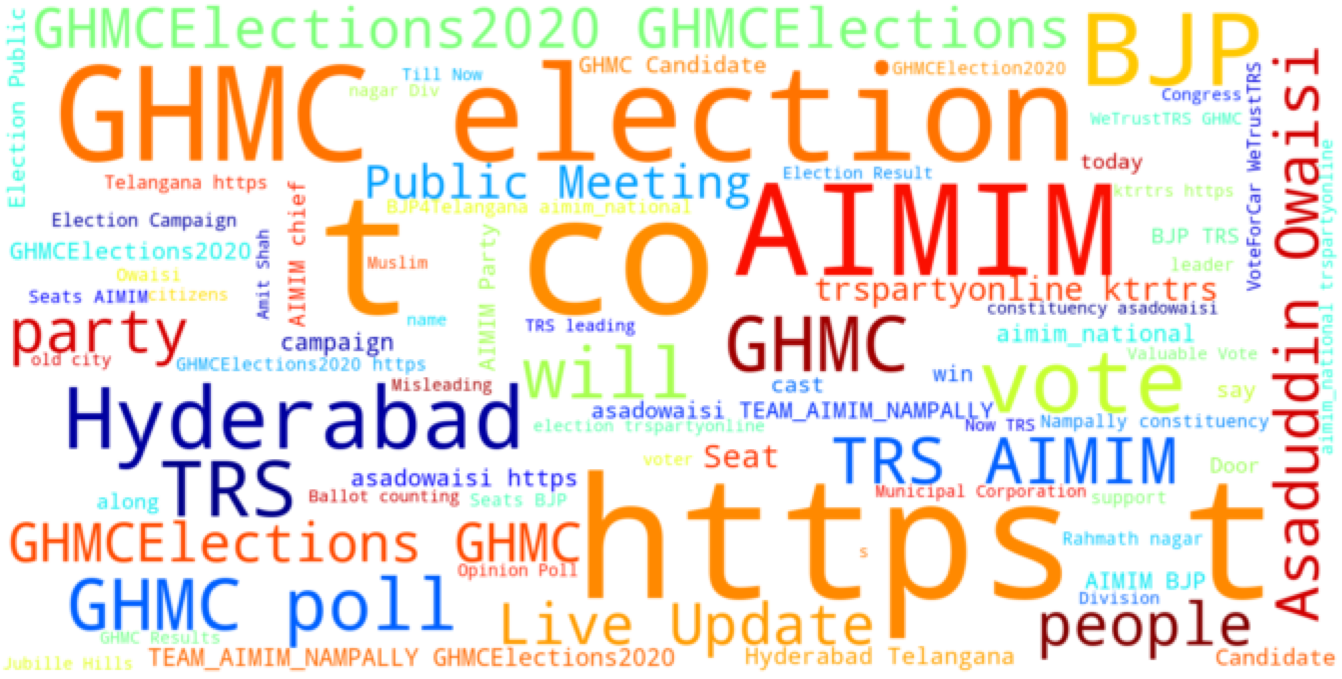
```
general  = AIMIM_Tweets.groupby('analysis').analysis.count()
neutral  = AIMIM_Tweets[TRS_Tweets['analysis'] == 'neutral'].ClearTweet.count()
positive = AIMIM_Tweets[TRS_Tweets['analysis'] == 'positive'].ClearTweet.count()
negative = AIMIM_Tweets[TRS_Tweets['analysis'] == 'negative'].ClearTweet.count()

fig = go.Figure(data = [go.Funnelarea(labels = ["positivity","negativity","neutrality"], values = [positive,negative,n
eutral])])
fig.update_layout(title_text ='sentimat analysis tweets AIMIM')
fig.show()
```

```
C:\Users\lenovo\Anaconda3\lib\site-packages\ipykernel_launcher.py:2: UserWarning:

Boolean Series key will be reindexed to match DataFrame index.

C:\Users\lenovo\Anaconda3\lib\site-packages\ipykernel_launcher.py:3: UserWarning:

Boolean Series key will be reindexed to match DataFrame index.

C:\Users\lenovo\Anaconda3\lib\site-packages\ipykernel_launcher.py:4: UserWarning:

Boolean Series key will be reindexed to match DataFrame index.
```


sentimat analysis tweets AIMIM
49.6%
15%
35.5%

In [38]:

```
from wordcloud import WordCloud, STOPWORDS, ImageColorGenerator
def word_cloud(wd_list):
    stopwords = set(STOPWORDS)
    all_words = ' '.join([text for text in wd_list])
    wordcloud = WordCloud(
        background_color='white',
        stopwords=stopwords,
        width=1600,
        height=800,
        random_state=1,
        colormap='jet',
        max_words=80,
        max_font_size=200).generate(all_words)
    plt.figure(figsize=(12, 10))
    plt.axis('off')
    plt.imshow(wordcloud, interpolation="bilinear");
word_cloud(aimim['Text'][0:1000])
```


GHMCElections2020 GHMCElections
BJP
Election Public
GHMC election
GHMC Candidate
GHMCElection2020
Till Now
nagar Div
Congress
WeTrustTRS GHMC
WeTrustTRS
Asaduddin Owaisi
today
Telangana https
Public Meeting
Election Result
ktrtrs https
Election Campaign
BJP4Telangana aimim_national
AIMIM
t
co
GHMCElections2020
AIMIM chief
Amit Shah
Muslim
AIMIM Party
BJP TRS
leader
VoteForCar
trspartyonline
Owaisi
Seats AIMIM
citizens
trspartyonline ktrtrs
constituency asadowaisi
party
old city
name
TRS leading
GHMC
aimim_national
campaign
GHMCElections2020 https
will
Valuable Vote
aimim_national
Misleading
cast
win
vote
say
Hyderabad
asadowaisi TEAM_AIMIM_NAMPALLY
election trspartyonline
Now TRS
Nampally constituency
TRS
along
asadowaisi https
Ballot counting
Seats BJP
voter
Seat
TRS AIMIM
Door
Municipal Corporation
support
GHMCElections
GHMC
Opinion Poll
https
s
Rahmath nagar
AIMIM BJP
Division
GHMC poll
GHMC Results
Live Update
people
Jubilee Hills
TEAM_AIMIM_NAMPALLY GHMCElections2020
Hyderabad Telangana
Candidate