In [1]:

```python
import datetime as datetime
import pandas as pd
import numpy as np
import matplotlib.pyplot as plt
import seaborn as sns
```

In [2]:

```python
train = pd.read_csv ('train.csv')
```

In [3]:

```python
submission = pd.read_csv ('sample_submission.csv')
```

In [4]:

```python
test = pd.read_csv('test.csv')
```

In [5]:

```python
train.head(5)
```

Out[5]:

	id	keyword	location	text	target
0	1	NaN	NaN	Our Deeds are the Reason of this #earthquake M...	1
1	4	NaN	NaN	Forest fire near La Ronge Sask. Canada	1
2	5	NaN	NaN	All residents asked to 'shelter in place' are ...	1
3	6	NaN	NaN	13,000 people receive #wildfires evacuation or...	1
4	7	NaN	NaN	Just got sent this photo from Ruby #Alaska as ...	1

In [6]:

```python
submission.head(5)
```

Out[6]:

	id	target
0	0	0
1	2	0
2	3	0
3	9	0
4	11	0

In [7]:

```python
test.head(5)
```

Out[7]:

	id	keyword	location	text
0	0	NaN	NaN	Just happened a terrible car crash
1	2	NaN	NaN	Heard about #earthquake is different cities, s...
2	3	NaN	NaN	there is a forest fire at spot pond, geese are...
3	9	NaN	NaN	Apocalypse lighting. #Spokane #wildfires
4	11	NaN	NaN	Typhoon Soudelor kills 28 in China and Taiwan

In [8]:

```python
#agregamos columna con numero de palabras de cada tweet
train['number_of_words'] = train['text'].str.count('') + 1
```

In [9]:

```python
train.head(5)
```

Out[9]:

	id	keyword	location	text	target	number_of_words
0	1	NaN	NaN	Our Deeds are the Reason of this #earthquake M...	1	71
1	4	NaN	NaN	Forest fire near La Ronge Sask. Canada	1	40
2	5	NaN	NaN	All residents asked to 'shelter in place' are ...	1	135
3	6	NaN	NaN	13,000 people receive #wildfires evacuation or...	1	67
4	7	NaN	NaN	Just got sent this photo from Ruby #Alaska as ...	1	90

In [15]:

```python
#nuevo df con tweets referenciados a desastres reales
real_disaster_tweets = train[train['target']==1]
real_disaster_tweets.head(5)
```

Out[15]:

	id	keyword	location	text	target	number_of_words
0	1	NaN	NaN	Our Deeds are the Reason of this #earthquake M...	1	71
1	4	NaN	NaN	Forest fire near La Ronge Sask. Canada	1	40
2	5	NaN	NaN	All residents asked to 'shelter in place' are ...	1	135
3	6	NaN	NaN	13,000 people receive #wildfires evacuation or...	1	67
4	7	NaN	NaN	Just got sent this photo from Ruby #Alaska as ...	1	90

In [16]:

```python
#info gneral sobre real_disaster_tweets
real_disaster_tweets.describe()
```

Out[16]:

	id	target	number_of_words
count	3271.000000	3271.0	3271.000000
mean	5661.608071	1.0	110.113421
std	3097.094809	0.0	29.309854
min	1.000000	1.0	16.000000
25%	3104.500000	1.0	90.000000
50%	5676.000000	1.0	117.000000
75%	8252.000000	1.0	138.000000
max	10873.000000	1.0	153.000000

In [17]:

```python
#nuevo df con tweets referenciados a desastres falsos o neutrales
fake_disaster_tweets = train[train['target']==0]
fake_disaster_tweets.head(5)
```

Out[17]:

	id	keyword	location	text	target	number_of_words
15	23	NaN	NaN	What's up man?	0	16
16	24	NaN	NaN	I love fruits	0	15
17	25	NaN	NaN	Summer is lovely	0	18
18	26	NaN	NaN	My car is so fast	0	19
19	28	NaN	NaN	What a goooooooaaaaaal!!!!!!	0	30

In [18]:

```python
#info gneral sobre fake_disaster_tweets
fake_disaster_tweets.describe()
```

Out[18]:

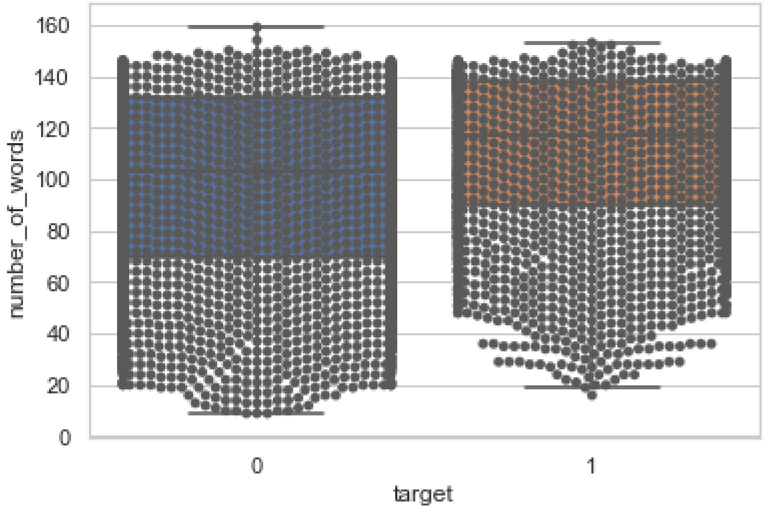
	id	target	number_of_words
count	4342.000000	4342.0	4342.000000
mean	5276.446338	0.0	97.706817
std	3157.206802	0.0	35.885924
min	23.000000	0.0	9.000000
25%	2513.250000	0.0	70.000000
50%	5243.500000	0.0	103.000000
75%	8038.500000	0.0	132.000000
max	10848.000000	0.0	159.000000

In [19]:

```python
#patron de distribucion de cada categoria
import matplotlib.pyplot as plt
sns.set(style="whitegrid")
#train = sns.load_dataset("train")

ax = sns.boxplot(x="target", y="number_of_words", data=train, showfliers = False)
ax = sns.swarmplot(x="target", y="number_of_words", data=train, color='.35')

plt.show()
```



In [ ]: