C1W3 Data Labeling Ungraded Lab

1 Week 3 - Ungraded Lab: Data Labeling

Welcome to the ungraded lab for week 3 of Machine Learning Engineering for Production. In this lab, you will see how the data labeling process affects the performance of a classification model. Labeling data is usually a very labor intensive and costly task but it is of great importance.

As you saw in the lectures there are many ways to label data, this is dependant on the strategy used. Recall the example with the iguanas, all of the following are valid labeling alternatives but they clearly follow different criteria.

You can think of every labeling strategy as a result of different labelers following different labeling rules. If your data is labeled by people using different criteria this will have a negative impact on your learning algorithm. It is desired to have consistent labeling across your dataset.

This lab will touch on the effect of labeling strategies from a slighlty different angle. You will explore how different strategies affect the performance of a machine learning model by simulating the process of having different labelers label the data. This, by defining a set of rules and performing automatic labeling based on those rules.

The main objective of this ungraded lab is to compare performance across labeling options to understand the role that good labeling plays on the performance of Machine Learning models, these options are: 1. Randomly generated labels (performance lower bound) 2. Automatic generated labels based on three different label strategies 3. True labels (performance upper bound)

Although the example with the iguanas is a computer vision task, the same concepts regarding labeling can be applied to other types of data. In this lab you will be working with text data, concretely you will be using a dataset containing comments from the 2015 top 5 most popular Youtube videos. Each comment has been labeled as spam or not_spam depending on its contents.

```
[1]: import os
import numpy as np
import pandas as pd
import matplotlib.pyplot as plt
```

1.1 Loading the dataset

The dataset consists of 5 CSV files, one for each video. Pandas DataFrame are very powerful to handle data in CSV format. The following helper function will load the data using pandas:

```
[2]: def load_labeled_spam_dataset():
         """Load labeled spam dataset."""
         # Path where csv files are located
         base_path = "./data/"
         # List of csv files with full path
         csv files = [os.path.join(base_path, csv) for csv in os.listdir(base_path)]
         # List of dataframes for each file
         dfs = [pd.read_csv(filename) for filename in csv_files]
         # Concatenate dataframes into a single one
         df = pd.concat(dfs)
         # Rename columns
         df = df.rename(columns={"CONTENT": "text", "CLASS": "label"})
         # Set a seed for the order of rows
         df = df.sample(frac=1, random_state=824)
         return df.reset_index()
     # Save the dataframe into the df_labeled variable
     df_labeled = load_labeled_spam_dataset()
```

To have a feeling of how the data is organized, let's inspect the top 5 rows of the data:

```
[3]: # Take a look at the first 5 rows df_labeled.head()
```

```
[3]:
        index
                                           COMMENT_ID \
     0
           86
                   z12uzb3oxy23cbikz23qsjczaxz5wh1t5
     1
          291
                 z122z5pa2wyofbjj304cgfwrrmvjgn0pohc
     2
              z13bttm5gxecfvrqq04cevkpuxj5s1u5ys40k
     3
          147
                   z132zl1rupqcylbep23jgfig3um3ct5vv
     4
          326
                 z12usr54ppaxxf1d123nhbybruapdnixw04
                                                  AUTHOR \
       luisel Tutoriales Gameplays (luisel Tutoriales)
     1
                                            Mia Aspinall
     2
                                            Vane Cavazos
```

```
3
                            KatyPerry TheQueenOfPop
4
                                    Arthur Teixeira
                          DATE
   2015-05-23T18:56:07.484000
0
1
          2014-11-08T10:30:35
2
          2014-09-20T15:39:44
          2014-09-22T06:50:24
3
          2014-11-12T20:12:47
                                                  text label
0
                                          music yeah
                                                           0
1
             2 billion views, only 2 million shares
                                                           0
  Katycat! https://m.facebook.com/profile.php?id...
2
                                                          1
   --> ATTENTION KATYCATS! Katy leads with 7 no...
3
                                                          1
 I wanted to know the name of the guy that danc ...
                                                          0
```

1.2 Further inspection and preprocessing

1.2.1 Checking for data imbalance

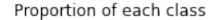
It is fairly common to assume that the data you are working on is balanced. This means that the dataset contains a similar proportion of examples for all classes. Before moving forward let's actually test this assumption:

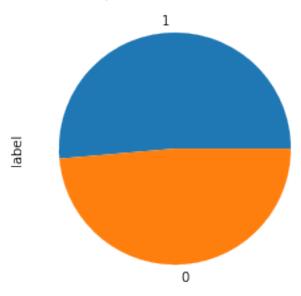
```
[4]: # Print actual value count
print(f"Value counts for each class:\n\n{df_labeled.label.value_counts()}\n")

# Display pie chart to visually check the proportion
df_labeled.label.value_counts().plot.pie(y='label', title='Proportion of each
→class')
plt.show()
```

Value counts for each class:

1 1005
0 951
Name: label, dtype: int64





There is roughly the same number of data points for each class so class imbalance is not an issue for this particular dataset.

1.2.2 Cleaning the dataset

If you scroll back to the cell where you inspected the data, you will realize that the dataframe includes information that is not relevant for the task at hand. At the moment, you are only interested in the comments and the corresponding labels (the video that each comment belongs to will be used later). Let's drop the remaining columns.

```
[5]: # Drop unused columns
df_labeled = df_labeled.drop(['index', 'COMMENT_ID', 'AUTHOR', 'DATE'], axis=1)
# Look at the cleaned dataset
df_labeled.head()
```

```
[5]: text label

0 music yeah 0

1 2 billion views, only 2 million shares 0

2 Katycat! https://m.facebook.com/profile.php?id... 1

3 -->ATTENTION KATYCATS! Katy leads with 7 no... 1

4 I wanted to know the name of the guy that danc... 0
```

Now the dataset only includes the information you are going to use moving forward.

1.2.3 Splitting the dataset

Before jumping to the data labeling section let's split the data into training and test sets so you can use the latter to measure the performance of models that were trained using data labeled through different methods. As a safety measure when doing this split, remember to use stratification so the proportion of classes is maintained within each split.

There are 1564 comments for training. There are 392 comments for testing

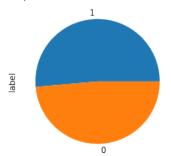
Let's do a visual to check that the stratification actually worked:

```
[7]: plt.subplot(1, 3, 1)
y_train.value_counts().plot.pie(y='label', title='Proportion of each class for
→train set', figsize=(10, 6))

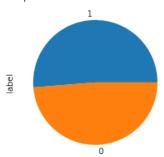
plt.subplot(1, 3, 3)
y_test.value_counts().plot.pie(y='label', title='Proportion of each class for
→test set', figsize=(10, 6))

plt.tight_layout()
plt.show()
```

Proportion of each class for train set



Proportion of each class for test set



Both, the training and test sets a balanced proportion of examples per class. So, the code successfully implemented stratification.

Let's get going!

1.3 Data Labeling

1.3.1 Establishing performance lower and upper bounds for reference

To properly compare different labeling strategies you need to establish a baseline for model accuracy, in this case you will establish both a lower and an upper bound to compare against.

1.3.2 Calculate accuracy of a labeling strategy

CountVectorizer is a handy tool included in the sklearn ecosystem to encode text based data.

For more information on how to work with text data using sklearn check out this resource.

```
[8]: from sklearn.feature_extraction.text import CountVectorizer

# Allow unigrams and bigrams
vectorizer = CountVectorizer(ngram_range=(1, 5))
```

Now that the text encoding is defined, you need to select a model to make predictions. For simplicity you will use a Multinomial Naive Bayes classifier. This model is well suited for text classification and is fairly quick to train.

Let's define a function which will handle the model fitting and print out the accuracy on the test data:

```
[9]: from sklearn.metrics import accuracy_score
from sklearn.naive_bayes import MultinomialNB

def calculate_accuracy(X_tr, y_tr, X_te=X_test, y_te=y_test,
```

```
clf=MultinomialNB(), vectorizer=vectorizer):

# Encode train text
X_train_vect = vectorizer.fit_transform(X_tr.text.tolist())

# Fit model
clf.fit(X=X_train_vect, y=y_tr)

# Vectorize test text
X_test_vect = vectorizer.transform(X_te.text.tolist())

# Make predictions for the test set
preds = clf.predict(X_test_vect)

# Return accuracy score
return accuracy_score(preds, y_te)
```

Now let's create a dictionary to store the accuracy of each labeling method:

```
[10]: # Empty dictionary
accs = dict()
```

1.3.3 Random Labeling

Generating random labels is a natural way to establish a lower bound. You will expect that any successful alternative labeling model to outperform randomly generated labels.

Now let's calculate the accuracy for the random labeling method

```
[11]: # Calculate random labels
rnd_labels = np.random.randint(0, 2, X_train.shape[0])

# Feed them alongside X_train to calculate_accuracy function
rnd_acc = calculate_accuracy(X_train, rnd_labels)
rnd_acc
```

[11]: 0.5612244897959183

You will see a different accuracy everytime you run the previous cell. This is due to the fact that the labeling is done randomly. Remember, this is a binary classification problem and both classes are balanced, so you can expect to see accuracies that revolve around 50%.

To further gain intuition let's look at the average accuracy over 10 runs:

```
[12]: # Empty list to save accuracies
rnd_accs = []
```

The random labelling method achieved and accuracy of 48.62%

Random labelling is completely disregarding the information from the solution space you are working on, and is just guessing the correct label. You can't probably do worse than this (or maybe you can). For this reason, this method serves as reference for comparing other labeling methods

1.3.4 Labeling with true values

Now let's look at the other end of the spectrum, this is using the correct labels for your data points. Let's retrain the Multinomial Naive Bayes classifier with the actual labels

The true labelling method achieved and accuracy of 91.58%

Training with the true labels produced a noticeable boost in accuracy. This is expected as the classifier is now able to properly identify patterns in the training data which were lacking with randomly generated labels.

Achieving higher accuracy is possible by either fine-tunning the model or even selecting a different one. For the time being you will keep the model as it is and use this accuracy as what we should strive for with the automatic labeling algorithms you will see next.

1.4 Automatic labeling - Trying out different labeling strategies

Let's suppose that for some reason you don't have access to the true labels associated with each data point in this dataset. It is a natural idea to think that there are patterns in the data that will provide clues of which are the correct labels. This is of course very dependant on the kind

of data you are working with and to even hypothesize which patterns exist requires great domain knowledge.

The dataset used in this lab was used for this reason. It is reasonable for many people to come up with rules that might help identify a spam comment from a non-spam one for a Youtube video. In the following section you will be performing automatic labeling using such rules. You can think of each iteration of this process as a labeler with different criteria for labeling and your job is to hire the most promising one.

Notice the word **rules**. In order to perform automatic labeling you will define some rules such as "if the comment contains the word 'free' classify it as spam".

First things first. Let's define how we are going to encode the labeling: - SPAM is represented by 1

- NOT_SPAM by 0
- NO_LABEL as -1

You might be wondering about the NO_LABEL keyword. Depending on the rules you come up with, these might not be applicable to some data points. For such cases it is better to refuse from giving a label rather than guessing, which you already saw yields poor results.

1.4.1 First iteration - Define some rules

For this first iteration you will create three rules based on the intuition of common patterns that appear on spam comments. The rules are simple, classify as SPAM if any of the following patterns is present within the comment or NO_LABEL otherwise: - free - spam comments usually lure users by promoting free stuff - subs - spam comments tend to ask users to subscribe to some website or channel - http - spam comments include links very frequently

```
[14]: def labeling_rules_1(x):
    # Convert text to lowercase
    x = x.lower()

# Define list of rules
rules = [
        "free" in x,
        "subs" in x,
        "http" in x
]

# If the comment falls under any of the rules classify as SPAM
if any(rules):
    return 1

# Otherwise, NO_LABEL
return -1
```

```
[15]: # Apply the rules the comments in the train set
labels = [labeling_rules_1(label) for label in X_train.text]

# Convert to a numpy array
labels = np.asarray(labels)

# Take a look at the automatic labels
labels
```

```
[15]: array([-1, -1, -1, ..., -1, -1, 1])
```

For lots of points the automatic labeling algorithm decided to not settle for a label, this is expected given the nature of the rules that were defined. These points should be deleted since they don't provide information about the classification process and tend to hurt performance.

Predictions with concrete label have shape: (379,) Proportion of data points kept: 24.23%

Notice that only 379 data points remained out of the original 1564. The rules defined didn't provide enough context for the labeling algorithm to settle on a label, so around 75% of the data has been trimmed.

Let's test the accuracy of the model when using these automatic generated labels:

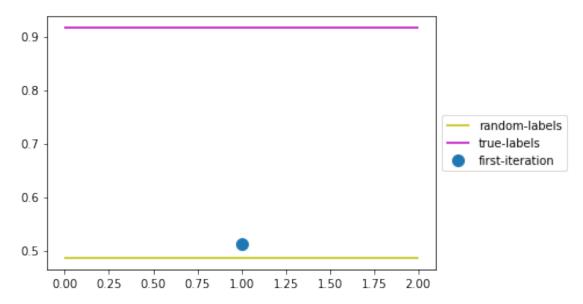
First iteration of automatic labeling has an accuracy of 51.28%

Let's compare this accuracy to the baselines by plotting:

```
[18]: def plot_accuracies(accs=accs):
    colors = list("rgbcmy")
    items_num = len(accs)
    cont = 1

    for x, y in accs.items():
        if x in ['true-labels', 'random-labels', 'true-labels-best-clf']:
            plt.hlines(y, 0, (items_num-2)*2, colors=colors.pop())
        else:
            plt.scatter(cont, y, s=100)
            cont+=2
    plt.legend(accs.keys(), loc="center left",bbox_to_anchor=(1, 0.5))
    plt.show()

plot_accuracies()
```



This first iteration had an accuracy very close to the random labeling, we should strive to do better than this.

Before moving forward let's define the label_given_rules function that performs all of the steps you just saw, these are: - Apply the rules to a dataframe of comments - Cast the resulting labels to a numpy array - Delete all data points with NO_LABEL as label - Calculate the accuracy of the model using the automatic labels - Save the accuracy for plotting - Print some useful metrics of the process

```
labels = [rules_function(label) for label in df.text]
   # Convert to a numpy array
  labels = np.asarray(labels)
   # Save initial number of data points
  initial_size = labels.shape[0]
   # Trim points with NO LABEL label
  X_train_al = df[labels != -1]
  labels = labels[labels != -1]
   # Save number of data points after trimming
  final_size = labels.shape[0]
   # Compute accuracy
  acc = calculate_accuracy(X_train_al, labels)
   # Print useful information
   if verbose:
       print(f"Proportion of data points kept: {final_size/initial_size*100:.
\rightarrow 2f}%\n")
       print(f"{name} labeling has an accuracy of {acc*100:.2f}%\n")
   # Save accuracy to accuracies dictionary
  accs_dict[name] = acc
  return X_train_al, labels, acc
```

Going forward we should come up with rules that have a better coverage of the training data, thus making pattern discovery an easier task. Also notice how the rules were only able to label as either SPAM or NO_LABEL, we should also create some rules that help the identification of NOT SPAM comments.

1.4.2 Second iteration - Coming up with better rules

If you inspect the comments in the dataset you might be able to distinguish certain patterns at a glimpse. For example, not spam comments often make references to either the number of views since these were the most watched videos of 2015 or the song in the video and its contents. As for spam comments other common patterns are to promote gifts or ask to follow some channel or website.

Let's create some new rules that include these patterns:

```
[20]: def labeling_rules_2(x):
    # Convert text to lowercase
```

```
x = x.lower()
# Define list of rules to classify as NOT_SPAM
not_spam_rules = [
    "view" in x,
    "song" in x
]
# Define list of rules to classify as SPAM
spam_rules = [
    "free" in x,
    "subs" in x,
    "gift" in x,
    "follow" in x,
    "http" in x
]
# Classify depending on the rules
if any(not_spam_rules):
    return 0
if any(spam_rules):
    return 1
return -1
```

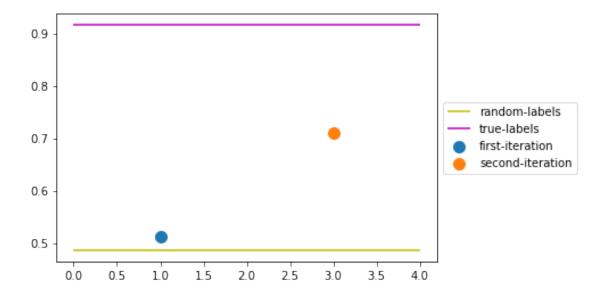
This new set of rules looks more promising as it includes more patterns to classify as SPAM as well as some patterns to classify as NOT_SPAM. This should result in more data points with a label different to NO_LABEL.

Let's check if this is the case.

```
[21]: label_given_rules(X_train, labeling_rules_2, "second-iteration")
plot_accuracies()
```

Proportion of data points kept: 44.12%

second-iteration labeling has an accuracy of 70.92%



This time 44% of the original dataset was given a decisive label and there were data points for both labels, this helped the model reach a higher accuracy when compared to the first iteration. Now the accuracy is considerably higher than the random labeling but it is still very far away from the upper bound.

Let's see if we can make it even better!

1.4.3 Third Iteration - Even more rules

The rules we have defined so far are doing a fair job. Let's add two additional rules, one for classifying SPAM comments and the other for the opposite task.

At a glimpse it looks like NOT_SPAM comments are usually shorter. This may be due to them not including hyperlinks but also in general they tend to be more concrete such as "I love this song!".

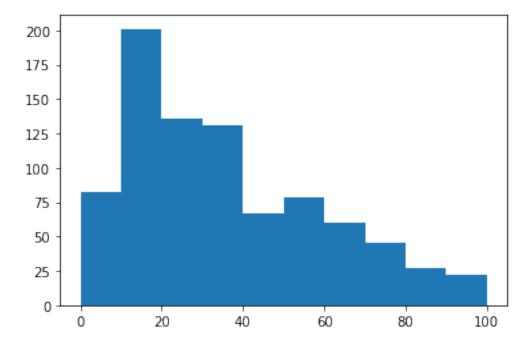
Let's take a look at the average number of characters for SPAM comments vs NOT_SPAM oned:

NOT_SPAM comments have an average of 49.64 characters. SPAM comments have an average of 137.34 characters.

It sure looks like there is a big difference in the number of characters for both types of comments.

To decide on a threshold to classify as NOT_SPAM let's plot a histogram of the number of characters for NOT_SPAM comments:

```
[23]: plt.hist([len(t) for t in df_labeled[df_labeled.label==0].text], range=(0,100))
plt.show()
```



The majority of NOT_SPAM comments have 30 or less characters so we'll use that as a threshold. Another prevalent pattern in spam comments is to ask users to "check out" a channel, website or link.

Let's add these two new rules:

```
[24]: def labeling_rules_3(x):
    # Convert text to lowercase
    x = x.lower()

# Define list of rules to classify as NOT_SPAM
not_spam_rules = [
         "view" in x,
         "song" in x,
         len(x) < 30
    ]

# Define list of rules to classify as SPAM
spam_rules = [
         "free" in x,
         "subs" in x,</pre>
```

```
"gift" in x,
    "follow" in x,
    "http" in x,
    "check out" in x
]

# Classify depending on the rules
if any(not_spam_rules):
    return 0

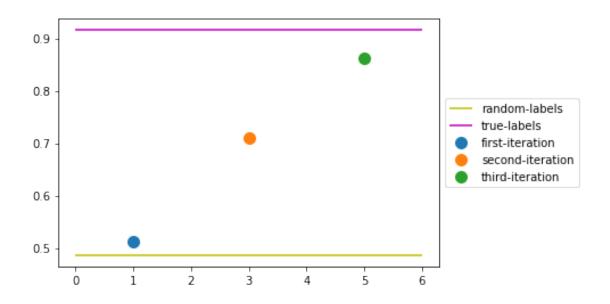
if any(spam_rules):
    return 1

return -1
```

```
[25]: label_given_rules(X_train, labeling_rules_3, "third-iteration")
plot_accuracies()
```

Proportion of data points kept: 78.26%

third-iteration labeling has an accuracy of 86.22%



These new rules do a pretty good job at both, covering the dataset and having a good model accuracy. To be more concrete this labeling strategy reached an accuracy of $\sim 86\%$! We are getting closer and closer to the upper bound defined by using the true labels.

We could keep going on adding more rules to improve accuracy and we do encourage you to try it

1.4.4 Come up with your own rules

The following cells contain some code to help you inspect the dataset for patterns and to test out these patterns. The ones used before are commented out in case you want start from scratch or re-use them.

```
[26]: # Configure pandas to print out all rows to check the complete dataset
pd.set_option('display.max_rows', None)

# Check NOT_SPAM comments
df_labeled[df_labeled.label==0]
```

```
[26]:
                                                                   label
                                                            text
      0
                                                                      0
                                                     music yeah
      1
                       2 billion views, only 2 million shares
                                                                      0
      4
            I wanted to know the name of the guy that danc...
                                                   NICE GIRL :D
      6
                                                                      0
      7
                                            this is increidebl
                                                                      0
      8
                                             2 Billions in 2014
      9
                                                      Love Song
                                                                      0
      12
                                                   Awsome<br />
                                                                      0
      14
                                            best song ever (y)
                                                                      0
      15
                             The best world cup song ever!!!!
                                                                      0
      16
                        It was cool
                                        the best
                                                    song ever
                                                                      0
      17
            If I knew Korean, this would be even funnier. ...
                                                                     0
      21
            when i see this back in 2015 i ask myself how ...
      22
                                                 like the songs
                                                                      0
                                    Anybody else here in 2015?
      25
                                                                      0
      27
                                                      Nice song
                                                                      0
      28
                                                                      0
                                        Oppa! Yeah! Best Song!
      31
                                                              WOw
                                                                       0
      32
            hay my is honesty wright i am 12year old i lo...
                                                                     0
                                   Best world cup offical song
      34
                                                                      0
      35
                                      I love this song so much
                                                                      0
                                                                      0
      36
                                                       Love you
      38
                     i like the lyrics but not to music video
                                                                      0
            Katy Perry is garbage. Rihanna is the best sin...
      39
                                                                     0
      40
            I love this song, can't believe it was 5 y...
                                                                     0
      41
                         just came here to check the views :P
                                                                      0
      43
            Eminem rap can be easy for a boy but I can do ...
                                                                     0
      47
                                                                       0
                                                              WOW
      48
                    Ahhh back when my life didn't suck...
                                                                    0
            I fucking hate her. Why? Because she don't wri...
      51
                                                                     0
            2,000,000,000 out of 7,000,000,000 people in t...
      52
                                                                     0
                   We get it, you came here for the views...
      53
                                                                    0
```

ΕΛ	host some over	0
54 55	best song eva so beutiful	0
57		0
61	4 fucking years are fucking past so fucking fa I love your songs eminem your the rap god	0
62		0
63	She is good. Does she make any more music? If	
	when is this gonna hit 2 billion?	0
65 70	is that megan fox x:D?	0
72 76	this song sucks	0
76	Love the way you lie - Driveshaft	0
77	waka waka	0
79	it is wonderful	0
80	EMINEM the best EVER.	0
82	It looks so real and my daughter is a big fan	0
83	I loved it so much	0
85	In my head this is like 2 years ago Time FLIES	0
87	This song/video is such a trigger but it's	0
88	It should be illegal to be this goodlooking as	0
89	This awesome song needed 4 years to reach to 8	0
90	Charlie, heroin will do that to you.	0
92	I love this song so much <3 Keep em	0
94	i am a big fan of you and i love you	0
97	Her voice sounds weird and plus she's cute	0
98	2 BILLION!!!	0
104	I like this song	0
107	Waka waka	0
109	WORLD RECORD YOUTUBE VIDEO VIEWS !!!!!! XD	0
110	PSY - GANGNAM STYLE () M/V: http://youtu	0
111	She is fit	0
112	Me and my big sister like you	0
114	If she really did this there she's hardcore	0
115	i love her	0
118	Stop,is a very TOP 1	0
120	This has had over 2 billion views. Holy shit.	0
121	love Shakira!	0
123		0
128	amazing song	0
129	I love this song	0
130	Good times.	0
131	Love this song so much! One of my faves! Xxx	0
132	Every collaboration between them, we know it w	0
133	goood	0
136	i turned it on mute as soon is i came on i jus	0
137	No one makes me wanna party like LMFAO does	0
138	fave song	0
141	NICE :3	0
142	5 years soon!	0
146	Who is watching in 2015 like	0

		_
148	I love you	0
156	Thumbs up if you listen this in 2015.	0
157	Your the best	0
161	super rihanna	0
166	Katy Perry is part of me Katy Perry is my fire	0
167 168	U I learned the shuffle because of them	0
		_
169	Its funny that Mahogany is there lmao, I actua	0
171	why are they 5million comments when there is o	0
172	Eminem is the greatest artist to ever touch th	0
178	EMINEM<3 the best rapper ever<3	0
184		0
	She is perfect	
185	I don't now why I'm watching this in 2014	0
187	Haha its so funny to see the salt of westerner	0
189	Almost 1 billion views, nice.	0
191	Who knows the name of that girl? and that on	0
192	Katy Perry - Roar (Official): http://youtu.be/	0
	· · · · · · · · · · · · · · · · · · ·	
193	she is horrible at acting. cringe-worhty.	0
200	Eminem is my insperasen and fav	0
201	The little PSY is suffering Brain Tumor and on	0
202	OPPA <3	0
211	·	0
	Best for partying	
212	Eminem and Rihanna sing the song very well.	0
213	I love her green eyes	0
217	You gonna hear me ROARRRR	0
218	Wow this video is the most viewed youtube vide	0
219	Oh my god Roar is the most liked video at	0
222	Like	
		0
225	The girl in the train who was dancing, her out	0
230	i love u shakira	0
231	I really don't understand how this has 600 mil	0
233	Haha, I can't believe how many kids listen	0
235	Charlie from Lost!	0
239	WOWWWWWWWWWWWWWWWWWWWWWWW	0
242	Shakira you are so beautiful. You are lovely,	0
243	Almost 1 billion	0
244	This is the best, funny and viral video of his	0
247	Song name??	0
255	She named the tiger Kitty Purry No, seriously	0
257		_
	LolI dunno how this joke gets a lot of like	0
261	I like you . Katy Perry 600 60 6	0
262	2015 and more	0
263	I love this song so much!:-D I've heard it so	0
264	I hate videos like these with those poor anima	0
266	good party	0
267	2.126.521.750 views!!!!!!!!!!!!!	0
269	I love this song & amp; I love shakira<333	0

```
270
                           I love Shakira !!!!!!
                                                             0
271
                                                              0
      blue eyes, can't be trusted. uranus bless ame...
272
              Just gonna stand there and hear me cry ...
                                                               0
273
      charlieee :DDDD (Those who saw Lost only will ...
274
                                            I love music
                                                               0
275
      LMFAO - Party Rock Anthem ft. Lauren Bennett, ...
                                                              0
277
                                                               0
                                              Fantastic!
287
                   More views than nikki minaj Anaconda
                                                               0
288
                       2008-2010 were the years for pop
                                                               0
                                              Shakira :-*
290
                                                                0
293
                                               Looooved
                                                               0
294
                                  BEST SONG! GO SHAKI :D
                                                               0
295
                 I love this song soooooooooooo much
                                                               0
296
                             Is that girl is Megan fox
                                                               0
300
      I remember back when this was so popular every...
                                                              0
301
                                                 Memories
                                                               0
303
                                                               0
                                                       :)
304
      Shuffling all the way with LMFAO! I like this ...
305
                                        Love this song!!!
307
                                                               0
                                        nice ..very nice
308
      Every time I hear this song, I think about Ini...
                                                              0
309
      This Song Was Good Until It Got Overplayed The...
                                                              0
310
      Hahah, juyk! I allways laugh at the part 1:57...
                          I love KATY PERRY <3 &lt;3
311
                                                               0
313
           I love this song and expect the World Cup .
                                                               0
314
                                                               0
                                                     cool
                                       Shakira is perfect
319
                                                                0
320
                                                               0
                                                 Amazing
321
              We need to get this to 1 Billion Views!!
                                                               0
322
                                                              0
      This is my favorite song ever love this Party ...
323
      Dear person reading this, You are beautiful an...
326
                                         Love the video
                                                               0
327
                                                      Nice
328
                                                    Wow;)
                                                               0
331
                                      Waka waka she rules
333
                                                   2010:(
                                                               0
335
      thumbs up if you think this should have 1 bill...
                                                              0
336
                                                              0
      This comment will randomly get lot's of likes ...
      SERIOUSLY HOW DID THEY COME UP WITH THAT BEAT ...
340
      shuffle!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!...
343
347
      how can there be 2.124.821.694 views, when im ...
349
                                             Very Nice!
                                                               0
356
      Like if you came here too see how many views t...
357
                                                                0
358
                                                             0
                                   My favorite song
363
      this is the 2nd most best song when im gone by...
                                                              0
365
      Wow this video almost has a billion views! Did...
```

```
366
               This video is so cool, again and again!
                                                               0
367
             Way was their a guy warring a robot head.
                                                               0
368
                                      is that megan fox?
                                                               0
369
      You think you're smart?
                                       Headbutt your f...
                                                              0
370
      How can this have 2 billion views when there's...
                                                              0
371
      I'm not a big fan of the song but this video i...
                                                              0
375
                                                               0
376
      Nature is beautiful, no need to place tits in ...
                                                              0
381
                             Who df is Lauren Bennett..
                                                               0
384
                                     Best World Cup Song
                                                               0
387
               This song makes me want to drink bleach
                                                               0
390
                                                               0
                                          ILove shakira
392
      Eminem is idol for very people in España and M...
                                                              0
393
                                   Ahhh, 2 years ago...
394
                                                               0
                                                Loves it
397
                                      Best. Song. EVER
                                                               0
402
                                                               0
                 I think he was drunk during this :) x)
403
                                         Love you shkira
                                                               0
404
      I felt old when I realized that this song was ...
                                                              0
405
      i think they were drunk when they shot the fir...
                                                              0
406
                                          LOVE IT!!!!!!!
                                                               0
                                                              0
407
      I believe that soccer promotes terrorism. Bad ...
408
                                                                0
                  Beautiful song beautiful girl it works
413
      DISLIKE.. Now one knows REAL music - ex. Enimen
                                                               0
414
                                                              0
      Why does a song like this have more views than ...
416
                                                               0
417
      Love this song! My soccer team made a cd for o...
                                                              0
419
      I am now going to voyage to the first comment...
420
                                            Hi loving it
                                                               0
422
                                  Are those real animals
                                                               0
423
                                                               0
                                     some classsic :))))
426
           i want to smack this year boy in to forever
                                                               0
427
                                                               0
                                    lol so funny love it
429
      Almost 1 Bil. What? Wow, GS sucks, in my opini...
                                                              0
430
                                                               0
                                       PSY is a good guy
431
                                                  Awesome
                                                               0
434
                                                            0
438
                                                                0
                     :-D JJJ This is my favorite song
439
                          LOVE THE WAY YOU LIE .. "
                                                               0
                                                               0
444
                                  Almost to a billion :)
445
                Love this video and the song of course
                                                               0
447
                                       LMFAO IS THE BEST
                                                               0
448
      WHY DOES THIS HAVE 2 BILLION VIEWS THIS SONG I...
449
                       Yeah! Let's start the party!
                                                               0
451
                                                              0
      If the shitty Chinese Government didn't block ...
455
                                                              0
      Best song ever made i swear :D i still hear ev...
456
      Yesterday this video have 1 million likes and ...
```

```
458
      Lol thats the guy from animal planet and lost...
459
                                                                0
                                         Fuck you Eminem
460
                                                  awesome
                                                                0
462
                              Hi I am from bangladesh
                                                               0
463
                                                               0
      this very good so I dance with some companions...
465
                Let get this video to one billion views
                                                                0
466
                                                                 0
467
      People Who Say That "This Song Is Too Old Now,...
                                                               0
468
                                                                0
                                   Lip synch is terrible
476
                         PEACE & amp; LOVE!!
                                                                0
477
      Who else would give Katy perry a good old migh...
                                                               0
478
      thumbs up if u checked this video to see hw vi...
479
                                                   awesome
                                                                 0
482
                                        Party Rock<br />
                                                                0
485
      For all of the little kidz out there there is ...
                                                               0
488
      This is the best of the best video in world!!!...
                                                               0
491
      Glad to know im not the only one who knows its...
                                                               0
492
                                                                0
493
                    this song always gives me chills! :)
494
                                         What nicei
                                                             0
497
      C'mon Katy you are so close to 14,000,000 subs...
                                                              0
499
                          I LOVE YOU KATTY PERRY &1t;3
                                                                0
501
                                                               0
      I just realized that this verses in this song ...
502
      How are there 2 billion views and theres only ...
                                                               0
505
                                         Waka waka eh eh
                                                                0
508
                                       I love You Katy
                                                               0
510
                         I came here because of Vanoss.
                                                                0
512
                                      Wow she is sexy XD
                                                                0
513
                                This Song is AWESOME!!!!
                                                                0
514
                                                                0
                                                     Like
519
                                                 CUTE :)
                                                                0
521
                                                                 0
                            This Song will never get old
522
                                             Hii youtube
                                                                0
523
      You exactly who u want to be, watching your fav...
                                                               0
      In what South American jungle or any jungle fo...
525
                                                               0
528
                                          I love you ;p
                                                                0
529
                                                            0
                                       Made in china...
530
                                     I miss this song.
                                                               0
532
                                  Why sooooo many downs?
                                                                0
534
                         i want to be that robot guy...
536
                     i was born in the wrong generation
                                                                0
541
                                           Eminem rocks!
                                                                0
542
                 one of the BEST SONGS in music history
                                                                0
543
      Lamest World Cup song ever! This time FOR Afri...
                                                               0
544
                                                                0
                                            likeeeeeeee
547
                                                      Omg
                                                                0
549
                                                     Nice
                                                                0
```

```
550
      I dont even watch it anymore i just come here ...
                                                               0
552
                                                                0
                                             I love song
553
                      Katy perry songs aren't that bad
                                                                0
558
                      Why so many disliked?????!!!!!!
                                                               0
559
      Remeber the good ol' days when songs weren...
                                                               0
564
      XD I WAS GOING CRAZY FUCKIN CRAZY WATCHIN THIS ...
                                                               0
565
            Feels and emotions in this song...God damn
566
                 This video deserves <b>1B</b> views!!!
                                                                0
572
      "...because I AM a champion...and you're gonn...
573
                                      Best Music Ever!!!
                                                                0
575
                     WE GO FOR 1,000,000,000 FOR EMINEM
                                                                0
576
                                                               0
                           We pray for you Little Psy
578
                               Awesum song!! Jus luv it!
                                                                0
580
      sorry but eminmem is a worthless wife beating ...
                                                               0
582
                     Very pleasant to hear, haha, good.
                                                                0
583
                                              tension
                                                             0
585
      666,002,018 views! 666 million. 666! Katy Perr...
                                                               0
586
      The Guy in the yellow suit kinda looks like Ja...
                                                               0
588
      Loool nice song funny how no one understands (...
589
                                                               0
      So underrated better <br /> Than Katy perry :/ ...
591
                         2010? The time past so fast ...
                                                                0
592
                                                              0
                                                  Love
593
                    What is he saying?!?!?!?!?!?!?!?
                                                                0
595
      Why did they stop their career in music? This ...
                                                               0
598
      Your going to hear me Roar !!!! :-))))
                                                  #soun...
                                                               0
599
      I fuckin love this song! <br /> <br /> Afte...
600
      The most watched video on YouTube is Psy's "Ga...
603
      PSY GOT LOTS OF MONEY FROM YOUTUBE THAT HE GO...
605
      i watched this because of the large amount of ...
607
      2 Billion Views For This Piece Of Shit ... ~ A ...
                                                             0
608
      I like the music...but is anyone listening to ...
                                                             0
609
                                                                0
                           wait I SAW A KID NOT KIDDING
                                                                0
613
                       That guy charley of lost TV show
616
                                        Almost a billion
                                                                0
623
                                                                0
                I'm here to check the views.. holy shit
626
                                       Charlie from LOST
                                                                0
627
                                                               0
                                You are the music hero
628
      If only I had the body like Katy Perry :)). Sh...
                                                               0
629
      Charlie got off the island and dated Megan Fox...
                                                               0
631
      What Can i say...This Song He Just Change The ...
                                                               0
632
      Katy Perry - Roar (Official): http://youtu.be/...
634
      8 million likes xD even the subscribers not 8 ...
636
                                2 billion for this shit?
                                                                0
638
                  I miss when people dressed like this.
                                                                0
639
                                                                0
                                            Waka waka !!!
640
      MEGAN FOX AND EMINEM TOGETHER IN A VIDEO DOES...
                                                               0
641
                   i'm watching this on summer 2015
                                                                0
```

642	Love this song !!!!!!	0
644	Hey I think I know what where dealing with her	0
645	Still the best. :D	0
648	She looks like Megan Fox xD!!	0
649	Lol I love this song	0
650	Ah. Good old times (:	0
652	I wish that guy wasn't so protective geeze	0
654	Good video	0
655	BEST SONG EVER X3333333333	0
657	LoL	0
659	So freaking sad	0
662	She is perfect	0
663	waka waka:-):-):-)	0
664	Never get old	0
666	I love it and my mom to	0
	•	
668	You best singer	0
671	I stil lisening this :)	0
676	I LOVE YOU!!! Because u make me smile when im	0
678	Is that Charlie from lost?	0
681	This is a weird video.	0
682	Your a fucking bitch	0
	e e e e e e e e e e e e e e e e e e e	_
683	they Shuffle hard that they made an Earthquake	0
684	Hello I'm from Bulgaria	0
685	:)	0
688	Lemme Top Comments Please!!	0
689	Rihanna and Eminem together are unstoppable.	0
691	best song	0
693	I love this song	0
694		_
	Who else saw jesses dancing sorry if I spelled	0
695	LMFAO best songs ever!	0
699	so crazy, over 2 billion views, not US, not Uk	0
700	I love it	0
706	857.482.940 views AWESOME !!!!!!!!!!!!!!!!	0
707	I could finally do the spongebob but I started	0
708	LMFAO - Party Rock Anthem ft. Lauren Bennett,	0
712	•	
	Beautiful song	0
713	She's an old Whore!	0
714	I love this song, it's for empowering every wo	0
716	Eminem best rapper all the time	0
717	Shakira	0
720	Fire	0
721	I love the song roar it make me think am fill	0
	•	
727	katy perry is awesome	0
728	the song is sad	0
730	Remove This video its wank	0
732	It is 0 zero	0
737	Shakira is very beautiful	0

```
739
      I remember when this used to be so popular all...
                                                             0
740
                                                              0
                                              wery good
743
      i hate this music. fucking singer and every ko...
                                                             0
744
      5 years later i still love this song <br />~Ax...
                                                             0
745
                                 How old is Katy perry?
                                                              0
749
      Its almost Katys birthday! October 25th Lets s...
                                                             0
753
                                                              0
                                             Lets party
754
                                                              0
                                                    epic
756
                                                              0
            Will this song ever reach 7 Billion Views?
760
                                                              0
761
                                    I < 3 Katy Perry!
                                                              0
762
                    The most liked video on YouTube...
765
        I like how the robot shuffles he shuffles good
                                                              0
767
                                                    Good
                                                              0
768
      At least she didn't get rid of her completely ...
                                                             0
770
                                              Nice song
                                                              0
774
                                          OMG LOVE THIS!
                                                               0
775
      Oh my god go to 1 billion of replay i love sha...
                                                             0
778
                      i love this song thumsb up to you
                                                              0
                                             Shakira :-*
781
786
                                      old and good song
                                                              0
                       Love these guys, love the song!
788
                                                              0
791
      Just coming to check if people are still viewi ...
                                                             0
793
      00 : 39 Im pretty sure that tiger just wanted ...
                                                             0
797
                                       2:05. Hahahahah
                                                              0
798
      they said this video are not deserve 2billion ...
                                                             0
799
                                                              0
804
      Shakira voice sound spanish but that is what m...
                                                             0
807
      0
                                                             0
810
      Omg! This guy sounds like an american professo...
813
                  It's been back for quite a while now.
                                                               0
814
                      Awesome song!, congratulations!!!
                                                              0
815
                                                              0
                                                Love it
819
                                just checking the views
                                                              0
820
      i like this song because of all the animals an...
                                                             0
821
                         Holy crap. 800,000,000 views?!
                                                              0
822
                                                              0
                                     best song in world
823
      9 year olds be like, 'How does this have 2 bil ...
                                                             0
824
                               MANY MEMORIES ...
825
                                       very good song:)
                                                              0
827
                                          I liked<br />
                                                              0
828
                                                Waka waka
829
      i like and love so much people all friends...
830
      Katy Perry can't sing for shit. All i hear it ...
                                                             0
831
                5 milions comentars and 2 bilion views
                                                              0
832
                                                              0
                                              I love it
833
                         She kinda let herself go, huh?
                                                              0
```

```
838
                                                                 0
                                        well done shakira
839
      This is so cool, why haven & #39; t I heard this b...
                                                               0
840
                              Katty is the best!!!!
                                                                0
      Thanks to this video we know that Nokia phones...
841
844
      Don't mind me, I'm just checking what the view...
                                                               0
847
      Behold the most viewed youtube video in the hi...
                                                               0
      sorry to all my haters<br /><br /><br /><br />...
850
                                                               0
851
      This song is great there are 2,127,315,950 vie...
                                                               0
                                                               0
853
      The great mother of the jungle. Sweet and natu...
856
                so spousal abusue cool that ' s great
                                                                0
858
                                                 like!!!!!
859
                                                             0
                               still watching in 2015...
860
                    Still listening, still same pleasure
                                                                0
865
      Youtube comments be like <br />This is so 5 yea...
                                                               0
866
      My 6th grade teacher looked exactly like Katy ...
                                                               0
868
      Every time I watch this mv I just so so so gla...
                                                               0
876
                                                                0
                                 Nice vídeo shakira good
877
                                                                0
                                             i like it :)
878
      Lets be honest, you wouldn't last 1 day on you...
879
                                                                0
                          Dang Dat little kid gat moves
880
                           Cutie girl and beautiful song
                                                               0
881
      katy perry just stop it and dont do a song i ...
882
                                          Wow I love it
                                                                0
883
                                                                0
                                                  I lovet
884
      This song means so much to me thank you soooo...
                                                               0
887
      OMG that looks just like a piece of the mirror...
      This is so stupid. If you Roared at a Lion in ...
889
891
      This video is kinda close to 1 million views ...
894
      That shake and that golden and black robot wer...
895
                Whose watching this in 2015. If so hi-5
                                                                0
896
                                I love shakira<br />
                                                              0
898
      The song is very good ...but the video makes n...
899
                                      I love dis song!! 3
                                                                 0
901
                                        Watching in 2015
                                                                0
904
                                                                0
                                       this song is NICE
905
      2 billion views wow not even baby by justin be...
                                                               0
                                                               0
906
      How can this song have 629 million views while...
907
                                                                0
                        most popular video on youtube
911
      What the hell this song is already five years ...
913
                                     Where are Shakifans?
                                                                 0
                                                                0
917
                    Eminem et Rihana trop belle chanson
918
      i check back often to help reach 2x10^9 views ...
                                                               0
923
      5 years and i still dont get the music video h...
924
925
                                                                0
                    Thumbs up if you watched it in 2011
928
                                                                0
                               I love you Shakiria!!!!!!
929
      The perfect example of abuse from husbands and...
                                                               0
```

930	2015 LIKEEE	0
932	#2015 FUCK YEAH	0
933	This song is true because it is insane because	0
934	Good song:-)	0
938	go here to check the views :3	0
939	everyday I'm shufflin	0
940	1 million dislikes!EPIC FAIL(ready for you fan	0
941	THIS IS SHIT AND SOOOOO AUTOTUNED	0
943	First they were fighting Then they were mak	0
947	I WILL FINISH THIS DISSERTATION! And I will la	0
948	969,210 dislikes like dislike themselves	0
949	psy=korean	0
953	prehistoric songhas been	0
955	she is a fool. this is a foolish video. the ly	0
956	Shakira is my favourite singer. Wooooo	0
958	Ching Ching ling long ding ring yaaaaaa Ganga	0
959	I LOVE YOUR SONGS	0
960	How can this music video get 2 billion views w	0
963	that is megan fox	0
964	Rihana, Love Me. :(0
965	BEST PARTY SONG LITERALLY PARTY ROCK IS IN THE	0
966	great song, but we all know that Katy buys her	0
968	Best song ever!!!!	0
974	Why do I feel like as if Gangnam style copied	0
975	this video is great!!! I love this 0	
981	Whose who are watching this in 2015. LIKE!	0
986	Best song ever	0
991	Hello. İ am from Azerbaijan 	0
992	Loooooooove this song!!!!!!!!:))))))	0
995	If you are a person that loves real music you	0
996	Likeeee	0
997	OMG 2/7 People watched this video because ther	0
998	fucking love it omg :v	0
999	I love roar and Katy Perry. She is my favorite	0
1001	this fucking song like a'n oreo the only w	0
1002	why the elephant have a broken horn	0
1003	Katy Perry is lion	0
1005	And after the video ends, a 13 ft. boa constri	0
1006	Honestly speaking except taylor swift and adel	0
1013	LIKKEE	0
1015	why tiger succumbs to a beautiful girl ?.proba	0
1016	My honest opinion. It's a very mediocre song	0
1017	every bady yust have a good time	0
1018	sexy shakira	0
1022	#1 song in world even in 2015	0
1026	LOL this shit never gets old	0
1027	3:46 so cute!	0

```
This is the only video on youtube that get so ...
                                                              0
1029
1030
                                                               0
                  Love this song makes me wanna dance!
1031
      everyones back lool this is almost 3 years old...
                                                              0
1034
                                                               0
                                               Best song
1035
      Anyone else notice that Megan Fox is in this v...
                                                              0
1037
                                                               0
                                     The best song ever!
      You gotta say its funny. well not 2 billion wo...
1040
                                                              0
1041
                            Wanderfol is love or miusic
                                                               0
1042
                              Super awesome video <br />
                                                               0
1045
                                   Was that Meghan fox??
                                                               0
1046
                                                               0
1052
      The first billion viewed this because they tho...
                                                              0
1053
                                         I like it<br />
                                                               0
1054
                                          Party rock! XD
                                                               0
1058
                                                               0
                  I hate it when Laura Bennett comes in
1060
      do you guys know, there's a part two of th...
                                                              0
1061
                                                                0
                              Shakira is the best dancer
                                                              0
1062
      This song is just insane. <br />Do you dance li...
      This song is like an oreo, the black part is g...
1065
1066
                                                               0
                                eminem is a ginius stop!
1071
                   This the best song i ever hire<br />
                                                               0
                                                               0
1072
                Im just to check how much views it has
1073
                                              She is good
                                                                0
1074
              NEW GOAL!
                           3,000,000! Let's go for it!
                                                               0
1075
                                                     Cool
                                                               0
1079
                                       just : ( superr!!!
                                                               0
1085
       Strong messages in every song I' ve heard.
                                                               0
1089
      I'd rather hear some propa explicit gangsta ra...
                                                              0
1091
                                           ILOVETHISSONG
                                                               0
1092
      Why dafuq is a Korean song so big in the USA. ...
                                                              0
1094
                      I like so much this music, good
                                                               0
1095
                                                              0
      If you pause at 1:39 at the last millisecond y...
1099
                Love your songs<br />Supper cool<br />
                                                               0
1100
      should not have paused the music, this is a cl...
                                                              0
1102
                                                               0
                                            amazing song
1106
                         not 2 million view anymore :))
                                                               0
1109
      Stupid people... this video doesnt have 2 bill...
1110
                                              Y LOVE YOU
                                                               0
1111
                                  Shakira u are so wiredo
1112
                                     my son love so much
                                                               0
1113
                                          Love this song
                                                               0
      How did THIS Video in all of YouTube get this ...
1115
                         I like the Mmph version better
                                                               0
1116
                                        I like shakira..
                                                               0
1120
                                                               0
                              I'm watching this in 2014
1121
      I remember when everyone was obsessed with Gan...
                                                              0
1127
                              I found out this song now
                                                               0
```

```
0
1128
      Where did she find all that make up in a freak...
1129
                                      Charlie from LOST?
                                                               0
1131
      "eye of the tiger" "i am the champion" seems 1...
                                                              0
1133
      Enough with the whole "how does this have two ...
                                                              0
1136
      Its funny because I listen to rock and death m...
1139
                                                                0
                                                Very nice
      In the beginning she was scared off everything...
1140
                                                              0
1141
                 love lmfao party rockin keep it going
                                                               0
1144
                     cool cool cool cool cool cool
                                                               0
1148
                                    Very good! Like! :D
                                                               0
1153
      To help shakira become the first female to hit...
                                                              0
      WAT DA FUCK THIS THE MOST VIEWED VIDEO IN YOUT...
1157
      I love this song for two reasons: 1.it is abou...
                                                              0
1158
               Thumbs up if you' re watching in 2015
                                                               0
                            Best song for ever <br />
                                                             0
1161
1162
      Hi, nice song Shakira! (Sorry for bad Brazilian)
                                                               0
                                                               0
1163
             Getting too 1billion views, holy moly.!!!
1164
                                  this comment is wrong
                                                               0
1166
                                                               0
                                        i love this song
                                                               0
1167
                            I'm only checking the views
1168
                              No-I hate The Way U LIe!!
                                                               0
                                                               0
1170
                                               I like it
                                                              0
1173
      looooooooooooooovvvvvvvvveeeeeeeee it...
1174
                                                               0
1176
      Shakira is different :) She is so happy all th...
1177
                                                               0
                                                      :-)
1179
      On 0:02 u can see the camera man on his glasse...
1180
                                        my favorite song
                                                               0
1182
      Dumb Guy: Why is there 2 billion views when th...
                                                              0
1183
                                                              0
      1 millioon dislikesssssssssssssssssssssssssssss...
1184
      He is good boy!!!<br />I am krean I like to em...
1185
      I loved this song when I was in my teenage yea...
1187
                             watch this with sound off!
                                                               0
1189
      Lol this youtuber (officialpsy) is getting so ...
1190
                                                               0
                                            Amazing song
1192
      I guss this song is one of my worst fears in 1...
1193
                              coooooooooollllllllllll
                                                               0
1194
                                                 Not bad
                                                               0
1195
                                                  Love it
                                                                0
1196
                                still listening in 2015
                                                               0
1198
                                                GREAT!!!
                                                               0
1199
                            THUMBS UP FOR ROBO GUY BABY
                                                               0
1200
                                                                0
                                                   good!!
      This video will get to 2 billion just because ...
                                                              0
1202
      Awesome video this is one of my favorite song...
                                                              0
1203
1206
                                      this song is racist
                                                                0
1207
                                                  LMFAO!
                                                               0
```

```
0
1208
      When I hear Katy singing this, I cry. The song...
                                                              0
1210
      I don't understand this song, I have had t...
1211
                              im still watching in 2015
                                                               0
1213
                                              so beutiful
                                                                0
      i think about 100 millions of the views come f...
1214
                                                              0
1215
      Megan Fox is gorg in this!! Eminem is truly th...
                                                              0
1217
                       this song never get's old <3
                                                               0
1218
                              everyday I'm shufflin
                                                               0
1222
                                                                0
1223
      This song is the most boring, asinine song I h...
                                                              0
1225
                       Katy has conqueror's haki >:)
                                                               0
1228
      I hear this all the time on radio and its real...
1231
      This was such an epic track. And the video is ...
                                                              0
1234
      This video is so racist!!! There are only anim...
1235
                        This makes me miss the world cup
                                                                0
1236
                                      Great music anyway
                                                               0
1237
                                                              0
                   katy is mine the girl of my dreams
1238
      Is this the video that started the whole "got ...
                                                              0
      You know a song sucks dick when you need to us...
1241
                                                       :)
                                                               0
1242
                                        eminem - RIHANNA
                                                               0
1243
                      why does the world not shuffle????
                                                               0
1244
                                                               0
                This looks so fun and it's a good song
1250
                                          Good times ...
                                                             0
1251
                                           NOKIA spotted
                                                               0
1252
                                                               0
                                     ) M/V: PSY - G...
1254
      Mix - PSY - GANGNAM STYLE (
                                                           0
      Rihanna is so beautiful and amazing
1257
      I love this-the talents of eminem and Skylar, w...
                                                              0
1258
                                           LMFAO!!!!!!!!
                                                               0
               00000 SHUFFLLLLLLLLLLLLLLLLLLLLLINNNNN
1261
                                                               0
1263
      Katy Perry - Roar (Official): http://youtu.be/...
1265
                          Every day I'm Shuffling!
                                                               0
1267
                        Hey, it's Charlie from Lost
                                                               0
1271
                                    her voice is so wow!
1272
      i love this song so much!!!!!!!!!!!!!!...
                                                              0
1273
                                  Like this in 2015! :D
                                                               0
1275
      Can somebody wake me up when we get to 3 billi...
                                                              0
1276
                             I like this song very much
                                                               0
1279
         Rihanna is absolutely gorgeous in this video.
                                                               0
1280
                               Love it!!!!!!!!!!!!!!!!!!
                                                              0
      *KATY YOU ARE A SHIT GO DIE!!!!!ROAR IS A FLOO...
                                                              0
1283
      no where near one of eminems actual best songs...
1284
      The best Song i saw
1287
                                                               0
                                             song is bad
1290
      still.. this reminds me of 1 years back when i...
                                                              0
1293
                                  2015<br />I like video
                                                               0
```

```
1294
                  Love this song makes me wanna dance!
                                                               0
1295
      now its 1,884,034,783 views! pls. comment the ...
                                                              0
1297
      OH SHIT THIS WAS UPLOADED ON MY BIRTHDAY, fina...
                                                              0
1299
                                                               0
                                            I love song
1300
      Party rock anthem is love, party rock anthem is...
                                                              0
1306
                      This song never gets old love it.
                                                               0
1308
                                              5 years...
1310
                       Is that Charlie from lost?<br />
                                                               0
1316
           Party Rock...lol...who wants to shuffle!!!
1317
                                I love this song so much
                                                               0
1323
      So he's admitting he killed his girlfriend...
                                                               0
1325
      i love you katy perry because you will sing ni...
1329
             I loved, she is amazing.. OMG your eyes*_*
                                                               0
1332
        The population of world is more than 7 billion
                                                               0
1333
                                                               0
                                                  awesome
1334
                                    Justin bieber = gay
                                                               0
1337
      Katy Perry - Roar (Official) #soundsofsunday ...
                                                               0
1343
                                            I lovee it
                                                               0
1347
                                  I love the way you lie
                                                               0
1348
                       Never gets old best song ever
                                                               0
1351
                   2011- the last year of decent music.
                                                               0
1353
        That was very good I mean very very much good
                                                               0
                                                              0
1355
      Katy Perry's songs are the best of the songs o...
1356
                                                                 0
1358
                                                     Like
                                                               0
1360
      thumb up if you watching in 2015 and
                                              you like...
1362
                                                 BEAUTIFUL
1365
      Why the fuck this keeps updated? Comments : "5 ...
                                                              0
1366
                                                Love song
                                                               0
1367
                                   This song is so beauty
                                                                 0
1370
       Can we reach 3 billion views by December 2014?
                                                               0
1372
                    Is that tiger called 'Katty Purry'?
                                                               0
1373
                                       I remember this :D
                                                                 0
                                                               0
1374
      Really good song .<br/>you know love song song.
      the views... They' re over 90,000!!!!!!!...
1375
1376
      OMG this oldspice spraytan party commercial om...
                                                              0
                                                              0
1377
      imagine if this guy put adsense on with all th...
1379
           Rihanna looks so beautiful with red hair ;)
                                                               0
1382
      This song is about Rape and Cheating
                                                  <br /...
                          C'mon 3 billion views!!!!!!!
1386
                                                               0
1388
                                    Great. This is a song
                                                               0
1390
                       who the fuck cheats on megan fox
                                                               0
1391
      860,000,000 lets make it first female to reach...
                                                              0
1394
      It's so funny it's awesomeness lol aaaaaaa sex...
                                                              0
1396
                                                               0
                      just came to check the view count
1401
                                          Wow 23 min ago
                                                               0
1403
       i like this song the video goes perfect with it
                                                               0
```

1405	So,cool	0
1406	beautiful song!	0
1409	i remember this song!	0
1410	OMG LISTEN TO THIS ITS SOO GOOD!! :D	0
1411	I am going to blow my mind	0
1412	Great song	0
1413	The best FIFA world cup song for sure.	0
1417	I know it old song but (like) if you watching	0
1418	My telephone!	0
1419	i love Rihanna [from Thailand]	0
1420	OMG over 2 billion views!	0
1424	Party rock	0
1427	see it all, human folly right?	0
1429	Me and my aunt love this song!!!!!	0
1432	how is this shit still relevant	0
1433	Fuck Eminem. Bieber is the best &1t;3	0
1434	i like this steps	0
1435	mindblowing dance.,.,superbbb song	0
1437	Katy has a voice of an Angel	0
1438	I like	0
1441	the most viewed youtube video of all time?	0
1445	THIS HAS MORE VIEWS THAN QUEEN AND MICHAEL JAC	0
1447	nice song	0
1450	Wow dance show	0
1451 1452	I cried this song bringing back some hard memo	0
1452	Party time!	0
1454	Shakira I love you I always end up coming back to this song br />	0
1458	Eminem - Love the way you lie	0
1459	wierd but funny	0
1460	is it bad that my realtionship is just like th	0
1462	This Will Always Be My Favorite Song br />But	0
1467	this has so many views	0
1469	2015 <3	0
1471	Screw this Chinese crap i dont even understand	0
1472	Waka waka	0
1473	god she is so sexy! drives me crazy!	0
1474	It is a shit	0
1476	I swear Shakira keeps getting more and more go	0
1477	The best song ever!	0
1481	God she is so hot	0
1483	Love the way you lie II is nicer in my opinion	0
1485	Like	0
1486	Since when has Katy Perry had her own YouTube	0
1490	I hav absolutely no idea what he's saying. Is	0
1491	the best!	0
1492	best rap ever	0

1500	Simply rap god	0
1502		0
	I love eminem <3	
1503	Love this song makes me wanna dance!	0
1505	Like eminen	0
1506	are there people who like this shit? hahah	0
1509	 0	
1511	cool song ever good thing its here	0
1512	great song you go katy!	0
1514	SHAKIRA SONG WAKA WAKA	0
1521	really want this video to get 1 billion views,	0
1528	I think this is now a place to promote channel	0
		0
1533	2015 but Im still listening to this!	_
1536	WOW	0
1537	Nice song ^_^	0
1538	beautiful	0
1539	YOUTUBE MONEY !!!!!!!!!!!!!!!!!!!!!!!	0
1540	hot, hot	0
1541	How is this the most watched Eminem video, it	0
1544	The rap: cool Rihanna: STTUUPID	0
1547	beautiful	0
1549	Fantastic!!!	0
1551		0
	To everyone joking about how he hacked to get	
1552	Hello Brazil	0
1554	love the way you lie featuring rhianna, hes an	0
1555	Party rock due and duel	0
1558	Maybe the best music video in the last 15 year	0
1559	she is sooooo beautiful!	0
1560	WELL THIS DUDES FADED THE FUCK OUT!	0
1561	How do you forget you have a choice, and what	0
1563	<a <="" href="http://www.youtube.com/watch?v=KQ6zr6" td=""><td>0</td>	0
1565	Why does this video have so many views? Becaus	0
1566	1,000,000 VIEWS NEAR	0
1567	This is fucking shit. From the first notes, th	0
1568	•	0
	this song is better then monster by eminem	
1570	Goooood	0
1571	She's awesome XD	0
1572	I remember that torunament like it was today.	0
1573	SUPER!!! !!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!	0
1574	People who believe in Illuminati are stupid th	0
1577	What my gangnam style	0
1583	shakira is best for worldcup	0
1585	Laughing My Fucking Ass Off!!!	0
1587	I love you Eminem	0
1591	Who is still watching in 2015	0
1595	<3	0
1597	Good thing she brought her spray-on tan, hairs	0
1600	love this song	0

		_
1601	never gets old	0
1602	2015!! LLIKEE!!	0
1603	that time in 2011 where this shirt was cool	0
1606	Made five years ago and people still don't	0
1607	Since she is a feminist champion, why would sh	0
1611	Don't love someone soo much, love the way	0
1612	''Little Psy, only 5 months left Tumor in th	0
1614	i hate rap	0
1616	That's Good :)	0
1618	OMG I LOVE YOU KATY PARRY YOUR SONGS ROCK!!!!!	0
1619	I love katty perry	0
	v - v	U
1626	This is getting old 0	_
1629	Is that Megan Fox?	0
1633	Nice love itttttttt wurkkkkkkkkkkkkkkkkkkkkkkkkk	0
1634	Still watching this 2 years later?	0
1635	I like this song 	0
1638	super music	0
1640	Perfect! <3	0
1642	Best song ever	0
1644	selfie alert	0
1648	waka waka	0
1651	you cant stop the shuffle	0
1652	I want to see Shakira, not football :)	0
1653	Dance :)	0
1654	Omg it's going to have 1bi views!	0
1655	Imagine this in the news crazy woman found act	0
1656	so cute that monkey *-*!	0
	·	
1657	I want new song	0
1658	Shakira	0
1661	Cool song	0
1662	it pisses me off a bit that blank space has mo	0
1664	Remeber when this song was good	0
1666	#2012bitches	0
1668	Came here to check the views, goodbye.	0
1670	I could hear this for years ;3	0
1671	love	0
1673	There is 7 bilion poeple on earth Now stop bei	0
1674	5 years ago damn	0
1675	most viewed video in the world	0
1676	Boooobs	0
1679	5th most viewed video i guess	0
1680	lets get it to 1 BILLION	0
1682	I really like this song.	0
1683	She's such an awesome entertainer. And pre	0
1684	-	0
	I love this song!!!	
1686	she is megan fox?because she is very similar	0
1691	super	0

```
I can't comprehend why this video has nearly 7...
                                                              0
                                                               0
1698
      The boyfriend was Charlie from the TV show LOST
1700
      Hello all 29.24% earth population of the world...
                                                               0
1702
                                       Eminem THE BEST !
                                                               0
1712
                                                               0
               she is beautiful but it is not American!
1713
                                       LOVE THIS SONG!!!
                                                               0
1715
      I've figured out why I dislike this song: it's...
                                                               0
1721
      870,000,000 views...566,000 comments...oh my 1...
1722
                            Sick Music for sick females
                                                               0
1731
      I love this shit but I disliked it because it'...
1733
                                                      cool
                                                                 0
1734
      who is going to reach the billion first : katy...
1739
      Its a good song and i like her video clip, bec...
                                                              0
1740
                                                               0
                                                  like me
1743
                                          Love this song
                                                               0
1744
                                       ROAAAARRRRR
                                                              0
1746
      Wow. Comments section on this still active. No...
1747
                              love the you lie the good
                                                               0
1748
                                                               0
                                                     Nice
1749
                                                               0
                      wow!!!!!! increible song!!!!!!!!!
1753
                          Love your song makes me happy
                                                               0
1754
                                super nice, love musique
                                                               0
      Shakira - Waka Waka <br />LOVE THIS SONG!!!!!!...
                                                              0
1756
1758
       Something to dance to, even if your sad JUST ...
                                                              0
1759
                                    She is perfect! <3
                                                                 0
1761
      Katy Perry You Are Looking Soo PRETTY DAMN CUT ...
1762
                                  How stupid humanity is
                                                               0
1763
        HONESTLY, I WANNA SEE YOU BE BRAVE! oh wait...
                                                             0
1766
                                              Shakira :-*
                                                                 0
                                                              0
1767
      I started hating Katy Perry after finding out ...
1768
      What's with the guys jacket? 1 sleeve and ...
                                                              0
1771
                                                               0
      With the korean girl more slut and bitch : Hyu...
1774
      Roar is without a doubt your best song...feel ...
                        And i'm Shufflin still today :D
1775
                                                               0
1777
                                                               0
        I don't think this song will ever get old
      I still to this day wonder why this video is s...
                                                               0
1778
1781
      Man this song really does get in your bones - ...
                                                              0
1788
                                       awesome song ever
                                                               0
1789
                                        JUST DANCE 3
                                                              0
1790
                              Damn, this was everywhere
                                                               0
1791
      I heard this when I was only 6 years old and I...
                                                              0
1793
                    this song is fu cking awesom!!!!!!!
                                                               0
1796
        You can not hate eminem and nirvana...trust me
      This song is special, because is a song for Af...
                                                              0
1801
1803
      My friend Sam loves this song
1805
                why I dont see any comments but mine?:/
                                                               0
1809
                           Party in da
                                         tonight
```

4040	II	0
1812	Wow5 years 	0
1813	She is a perfect wonder	0
1816	so many comments.	0
1817	Put famous people in the jungle for an hour an	0
1819	Waka best one	0
1820	How could 108k people dislike this song or video	0
1821	OPPA GANGNAM STYLE!!!	0
1823	Man she is BEAUTIFUL!	0
1825	this video is very inaccurate, a tiger would r	0
	•	
1826	good music	0
1829	I love this sooooooooooog I love katy perry	0
1831	Ouf Ouf OUFFFFFFFFFFFFFFFF!!!!!!! :)	0
1832	I love you!	0
1833	<3 this song so much.SHAKIRA YOUR A REALLY	0
	_	
1835	2,124923004 wiews wow	0
1839	1000000000 views.	0
1840	I really am madly in love with this woman!!	0
1841	Awesome	0
1844	Anyone else think this video theme is a bit of	0
	•	
1846	I love	0
1848	this jap is such a piece of shit. he is such a	0
1849	She's so pretty	0
1853	katy perry does remind me of a tiger, like as i	0
1854	The funny thing is, 1,700,000,000 of the views	0
	•	
1856	Love	0
1857	how does this video have 2,127,322,484 views i	0
1858	What does that tattoo on her right tricep say?	0
1859	I love your music	0
1864	Why there are so many dislikes. This song is s	0
1865	Every single one of his songs brings me back t	0
1869	love!!!!	0
1873	shakira is the best!	0
1875	PARTY ROCK (8) ~	0
1876	The first comment is chuck norrus ovbiously :D	0
1877	Still a very fun music video to watch!	0
	•	
1881	I hate this song!	0
1882	I love this song because we sing it at Camp al	0
1884	I always have goose bumps at that part	0
1885	I shuffled while listening to this song. THE I	0
1888	Katy Perry - Roar (Official): http://youtu.be/	0
	· · · · · · · · · · · · · · · · · · ·	
1893	LOVE TROP FORT VOTRE clip	0
1897	You are all sheep, period. This is terrible mu	0
1901	This song is so AWESOME!!!She made everything	0
1904	I love this song up to the moon >3 you are	0
1907	I'm sorry Katy Perry, I was being weird. I sti	0
1908	Love it when I can relate to my daughter's mus	0
1911	This song is just really fun	0

```
1914
                                        I love this song
                                                                0
                                                                0
1915
                        I hate rap and I like this song
1916
      She's got it all. Incredible voice, extremely ...
                                                               0
      PSY - GANGNAM STYLE ( ) M/V: http://youtu...
1918
      In my opinion I think you look better with bla...
1920
1922
                                                                0
                                                nice song
1924
                   One of the best song of all the time
                                                                0
1925
      i totally love this song. absolutely fantastic...
                                                               0
1927
                                        I lover this song
                                                                 0
1931
                                           i love song :)
                                                                0
1932
                                               Shakira :-*
1933
                       we all love you Katy Perry <3
                                                                0
1935
           GANGMAN STY- *D-D-D-D-D-D-DROP THE BASS!!*
                                                                0
1936
                                                  Shuffle
                                                                0
1937
      And somehow she has access to makeup in the mi...
                                                               0
1938
      It makes me happy instantly, and makes me forg...
                                                               0
1939
                                       is that Megan fox
                                                                0
1942
      Admit it you just came here to check the numbe ...
                                                               0
1943
                            i am 2,126,492,636 viewer :D
                                                                0
      The Funny Thing Is That this song was made in \dots
1944
                                                               0
1945
                                2 billion...Coming soon
1947
                           DAMNNNNNNN, she is sexy 0 0
                                                                0
1948
      Most viewed video on youtube...daaaaaaaaaannn...
                                                             0
1951
                       Very Nice !!! <br />Yeah Fucking.
                                                                0
1952
           Its 2015 and still shuffling to this song
                                                              0
1954
                                                I love you
```

[27]: # Check SPAM comments

df_labeled[df_labeled.label==1]

```
[27]:
                                                                  label
                                                            text
      2
            Katycat! https://m.facebook.com/profile.php?id...
                                                                    1
      3
            --> ATTENTION KATYCATS! Katy leads with 7 no...
                                                                    1
      5
            Hey guys I'm 87 cypher im 11 years old and...
      10
               check out my channel for rap and hip hop music
      11
                 http://ubuntuone.com/40beUutVu2ZKxK4uTgPZ8K
                                                                     1
      13
                                           gofundme.com/grwmps
                                                                     1
      18
            Hey guys subscribe to my channel for no reason...
                                                                    1
      19
            Subscribe to me i subscribe back!!!! Plus i ha...
      20
            http://www.aaas.org/tech-i/vote#view/25874/217...
      23
                             Check out this video on YouTube:
                                                                     1
      24
            okay, this should cover me for some time... Th...
      26
                             Check out this video on YouTube:
                                                                     1
      29
            My uncle said he will stop smoking if this com...
                                                                    1
      30
                      Love itt and ppl check out my channel!!!
                                                                      1
      33
              like this comment if ur watching this on 2015
                                                                     1
            hey guys i know its annoying getting spammed s...
      37
                                                                    1
```

```
42
                    https://twitter.com/GBphotographyGB
                                                               1
44
      You guys should check out this EXTRAORDINARY w...
                                                              1
45
      Support the fight for your 4th amendment right...
                                                              1
46
      The Perry you're doing a good job good job I 1 ...
49
      Please subscribe every sub gets a shout out te...
                                                              1
50
      COFFEE! LOVERS! PLEASE! READ! Check out a ...
                                                              1
                           subscribe to my pagee please.
56
                                                                1
                             http://vimeo.com/106865403
58
                                                               1
      You guys should check out this EXTRAORDINARY w...
59
                                                              1
60
      YO GUYS IM 14 YEAR OLD RAPPER JUST STARTED RAP...
                                                              1
64
                                       subscribe please
                                                               1
66
                     Check out this video on YouTube:Qq
                                                               1
67
        Search "Chubbz Dinero - Ready Or Not " Thanks
                                                               1
68
      **CHECK OUT MY NEW MIXTAPE**** **CHECK OUT MY ...
                                                              1
      (( rapid facebook )) the free version of all c...
69
                                                              1
70
                                    Subscribe me please
                                                               1
71
      LADIES!!! ----> > If you have a broken h...
                                                              1
73
                 watch?v=vtaRGgvGtWQ
                                        Check this out .
                                                               1
74
                       sub my channel for no reason -_-
                                                               1
75
      COME AND CHECK OUT MY NEW YOUTUBE CHHANEL, GOI ...
                                                              1
78
                        http://9gag.com/gag/aAVpwj9/ =)
                                                               1
      me segue ha https://www.facebook.com/marcos.s...
81
                                                              1
84
      Hi Guys im an Upcoming Rapper if you could che...
                                                              1
86
                    Check out this playlist on YouTube:
                                                               1
91
      We are an EDM apparel company dedicated to bri...
93
                       Check out this video on YouTube:
                                                               1
95
      You guys should check out this EXTRAORDINARY w...
96
      Check out this playlist on YouTube:chcfcvzfzfb...
99
             LIKE AND SUBSCRIB IF YOU WATCH IN 2015 ;)
                                                               1
100
                       Check out this video on YouTube:
                                                               1
101
                                 Please subscribe to me
                                                               1
102
                     Come check out our parody of this!
                                                               1
                   Follow me on Twitter @mscalifornia95
103
                                                               1
105
      Subscribe to me if u think " swag" is...
                                                              1
106
                 Check out this video on YouTube:..
                                                             1
108
      https://www.facebook.com/FUDAIRYQUEEN?pnref=st...
                                                              1
      hey its M.E.S here I'm a young up and comi...
113
                                                              1
116
      Cool Video LMFAOVEVO! You should check out my ...
                                                              1
117
                       Check out this video on YouTube:
                                                               1
119
                              CHECK OUT DANEJA GOOD GIRL
122
      Ummm... I just hit 1k subscribers. I make Mine...
124
                       Check out this video on YouTube:
                                                               1
125
      Check out my videos guy! :) Hope you guys had ...
                                                              1
126
      subscribe to <span class="proflinkWrapper"><sp...
                                                              1
127
      iS IN TOP 10 , IN YOUTUBE TOP VIEWS , ON 9 IS ...
                                                              1
134
                                                               1
                                       great 1 subscribe
135
                   please subscribe to my page. thanks.
```

```
139
      http://www.ermail.pl/dolacz/V3VeYGIN CLICK ht...
                                                              1
140
                                                               1
                Check out our Channel for nice Beats!!
143
                                           Subscribe ME!
                                                               1
144
      http://thepiratebay.se/torrent/10626835/The.Ex...
                                                              1
145
       HI IM 14 YEAR RAPPER SUPPORT ME GUY AND CHECK...
                                                              1
147
      Tell us the title so i can like and subscribe ...
                                                              1
149
                                     subscribe my chanel
                                                               1
150
      Hey Music Fans I really appreciate any of you ...
151
      Hey everyone check out my channel leave a like...
                                                              1
152
                   Check out this playlist on YouTube:
                                                               1
153
      http://www.ebay.com/itm/131275322914?ssPageNam...
154
                        http://shhort.com/a?r=G8iX5cTKd
                                                               1
155
      Check Out The New Hot Video By Dante B Called ...
158
      People, here is a new network like FB...you re...
                                                            1
159
      If I get 100 subscribers, I will summon Freddy...
                                                              1
160
                                 go check out our video
                                                               1
162
                                                               1
                       Check out this video on YouTube:
163
      Subscribe pleaaaase to my instagram account , ...
164
      Subscribe to my Youtube Channel!! :) Suscribit...
                                                              1
165
      Anyone Who LOVEs music , please go check out m...
                                                              1
170
      Like Gorlin-Goltz Syndrome Support Community, ...
                                                              1
173
      Limit sun exposure while driving. Eliminate th...
174
              Check out pivot animations in my channel
                                                               1
175
                       Check out this video on YouTube:
                                                               1
176
                       Check out this video on YouTube:
                                                               1
177
      At 500 subscribers i'm sky diving help me ...
179
      Wow justin Bieber is Better thats why when he...
                                                              1
180
      Come check out our music channel! go check out...
                                                              1
181
                       Check out this video on YouTube:
                                                               1
182
      hey guys if you guys can please SUBSCRIBE to m...
                                                              1
183
      Being paid to respond to fast paid surveys fro...
                                                              1
186
      Stop Wasting Up Your Time and Get Paid To Mes ...
                                                              1
188
      Hey guys plz check out my youtube channel to c...
190
      Like this comment if you still jam out to this ...
                                                              1
194
      This great Warning will happen soon. ,0\nLneaD...
                                                              1
195
      http://www.bing.com/explore/rewards?PUBL=REFER...
                                                              1
196
      DO YOU KNOW HOW SEAN KINGSTON GOT FAMOUS WHY D...
                                                              1
197
      pls http://www10.vakinha.com.br/VaquinhaE.aspx...
                                                              1
198
      Check out this video on YouTube:<br /><br />Lo...
                                                              1
199
                                 Like This Comment
203
            please visit our web: wellcomemd.blogfa.com
                                                                1
204
             Check out this playlist on YouTube:
                                                            1
205
      I'm subscribing to you just because your c...
                                                              1
206
      Hey, have you tried " Dribble PROshot " ...
                                                              1
207
      Check my channel please! And listen to the bes...
                                                              1
208
      CHECK MY CHANNEL FOR MY NEW SONG 'STATIC'!! YO ...
                                                              1
209
      and u should.d check my channel and tell me wh...
                                                              1
```

```
210
      e.e...everyone could check out my channel.. d...
214
                                                              1
      http://www.ebay.com/itm/171183229277?ssPageNam...
215
                       Check out this video on YouTube:
                                                               1
216
                For Christmas Song visit my channel! ;)
                                                               1
220
      The britishs called that soccer but you know t...
                                                              1
221
                                     subscribe to my feed
                                                                1
        HI!:D!:) We're TWIN MELODY, 17 year old twi...
223
                                                              1
224
      SUP GUS THIS IS A VIDEO FOR PEOPLE WHO LOVES P...
226
                       Check out this video on YouTube:
                                                               1
227
                       Check out this video on YouTube:
                                                               1
228
      https://www.facebook.com/pages/Brew-Crew-2014/...
229
      i was playing this song and the baby in my bel...
                                                              1
232
      Hey guys ready for more 87 Cyphers back check ...
234
                   Check out this playlist on YouTube:a
                                                               1
236
      Check out my dance videos!! You won't be d...
                                                              1
237
                     Hey check out my channel!!!! Please
                                                                1
238
       me shaking my sexy ass on my channel enjoy ^_^
                                                               1
240
      check it out free stuff for watching videos an...
241
                        Check out this video on YouTube
                                                               1
245
      Hello everyone my name's Anderson and i&#3...
                                                              1
246
      Hey Go To My Channel Check Out My Dongs Thanks...
                                                              1
248
                             I love that you subscribed
                                                               1
249
      Check out my channel to see Rihanna short mix ...
                                                              1
250
                                     Hey subscribe to me
                                                               1
251
                       Check out this video on YouTube:
                                                               1
252
          Check out this video on YouTube: <br /> <br />
253
                      Hi. Check out and share our songs.
                                                                1
254
                   Please visit this Website: oldchat.tk
                                                                1
256
      SUBSCRIBE me. if you do that leave your name s...
                                                              1
258
                                                              1
      Take a break from Katie and help me reach 100 ...
259
                                      Watch my videos xx
                                                               1
260
                       Check out this video on YouTube:
                                                               1
265
                       Check out this video on YouTube:
                                                               1
268
                            https://vimeo.com/107297364
                                                               1
276
      You guys should check out this EXTRAORDINARY w...
                                                              1
278
      https://www.indiegogo.com/projects/help-stop-m...
                                                              1
279
      Nicee!!sabrosura viva https://soundcloud.com/y...
                                                              1
280
      Hey guys, I was working last night on this pro...
                                                              1
281
      ima rapper trying to get notice please check o...
282
      You guys should check out this EXTRAORDINARY w...
                                                              1
283
                   Pleas subscribe my channel GamezZMTA
284
          Take a look at this video on YouTub<br />You
                                                               1
285
                    Check out this playlist on YouTube:
                                                               1
286
                   Rap from Belarus, check my channel:)
                                                               1
289
                       Check out this video on YouTube:
                                                               1
291
       I really can't comprehend Miley Cyrus , s...
                                                              1
292
      HAHAA THIS DANCE IS TIGHTTTT<br /><br />I know...
                                                              1
```

```
297
      Hey Music Fans I really appreciate all of you ...
                                                              1
298
                                                              1
      Hey everyone, I am a new channel and will post...
299
                      http://flipagram.com/f/LUkA1QMrhF
                                                               1
302
                  Check out this video on YouTube:fb i
                                                               1
306
                          Subscribe me Secret videos :D
                                                               1
312
                                               subscribe
                                                               1
315
      i rekt ur mum last nite. cuz da haterz were 2 ...
                                                              1
316
                  Check out this playlist on YouTube:a
                                                               1
317
                       Check out this video on YouTube:
                                                               1
318
      http://www.guardalo.org/best-of-funny-cats-gat...
                                                              1
324
      Dress like Rihanna at kpopcity.net - The large...
325
      Check out this video on YouTube<br /><br /><br />
                                                              1
329
      Hey I'm a British youtuber!!<br />I upload...
                                                              1
330
      https://www.paidverts.com/ref/tomuciux99 esyes...
332
              /watch?v=aImbWbfQbzg watch and subscrible
                                                                1
334
                                   I'm A SUBSCRIBER
                                                               1
337
                                     SUBSCRIBE MY CHANNEL
                                                                1
338
      Sign up for free on TSU and start making money...
339
           Check out: My Hood Doh, by Flixter Nossnevs
                                                               1
341
                       please throw a sub on my channel
                                                               1
342
                       Check out this video on YouTube:
                                                               1
344
                           WATCH MY VIDEOS AND SUBSCRIBE
                                                                1
345
      Hey if you guys wouldnt mind...could you check ...
                                                            1
346
      Hey! Subscribe to me for the peace in the wo...
                                                              1
348
      Like my page please... https://m.facebook.com...
350
      Earn money for being online with 0 efforts!
                                                              1
351
      Hey Music Fans I really appreciate all of you ...
352
                       Check out this video on YouTube:
                                                               1
353
                       Check out our cover of this song!
                                                                1
354
      Hey guys! Can you please SUBSCRIBE to my chan...
                                                              1
355
      SUB 4 SUB PLEASE LIKE THIS COMMENT I WANT A SU ...
                                                              1
359
              +447935454150 lovely girl talk to me xxx
                                                               1
360
      cool song check out my animal trafficking peti...
                                                              1
361
      all u should go check out j rants vi about eminem
                                                                1
362
                             everyday i'm subscribe
                                                               1
364
                                           adf.ly / K1D3Y
                                                                1
372
      I WILL NEVER FORGET THIS SONG IN MY LIFE LIKE ...
                                                              1
373
      Share Eminem's Artist of the Year video so...
                                                              1
374
      SnEakiESTG Good Music. Hood Muzik Subscribe 2 ...
377
      **CHECK OUT MY NEW MIXTAPE**** **CHECK OUT MY ...
378
          Check out my channel for funny skits! Thanks!
                                                                1
379
      Hey guys can you check my YouTube channel I kn...
                                                              1
380
      Youtube comments in a nut shell: <br /><br />.F...
                                                              1
382
      http://www.gcmforex.com/partners/aw.aspx?Task=...
                                                              1
383
                       Check out this video on YouTube:
                                                               1
      CHECK MY CHANNEL OUT PLEASE. I DO SINGING COVERS
385
                                                               1
386
            Subscribe to me and I'll subscribe back!!!
                                                               1
```

```
388
                       Check out this video on YouTube:
                                                               1
389
                                                               1
                              Subscribe to my channel !
391
                        like this comment then type 1337
395
                                                                1
                                 Check out my channel :)
396
      <a rel="nofollow" class="ot-hashtag" href="htt...</pre>
                                                              1
398
      I hope everyone is in good spirits I'm a h...
                                                              1
399
      want to win borderlands the pre-sequel? check ...
400
      You guys should check out this EXTRAORDINARY w...
401
      SUBSCRIBE TO ME AND I'LL SUBSCRIBE TO YOU! (Mu...
409
                  Check out this playlist on YouTube:m
                                                               1
410
      A friend of mine has invented a big dick form...
411
               https://www.facebook.com/antrobofficial
                                                               1
412
      Come and check out my music! Im spamming on loa...
415
      HEY GUYS!!!
                        BEFORE YOU IGNORE ME, PLE ...
418
      White people are going extinct for more inform...
                                                              1
421
                                  check out my new video
                                                                1
424
              Subscribe & Damp; Like /watch?v=5tu9gN11310
                                                                1
425
                       Hi. Check out and share our songs.
428
      check out fantasy music
                                  right here -----&...
432
            Subscribe me, I will? subscribe you back!!!
                                                                1
433
      Yo like what up this song is fricking beast an...
                                                              1
435
      Hey yall its the real Kevin Hart, shout out to...
436
       GO TO MY CHANNEL and check out my written songs
                                                               1
437
      Please check out my acoustic cover channel :) ...
440
                                                               1
                            Help me get 50 subs please
441
       Subscribe to me for free Android games, apps...
                                                               1
442
                     Check me out I'm all about gaming
                                                               1
443
                              Check out my mummy chanel!
                                                                1
446
      Hey dickwad - we' re all africans. The colo...
                                                              1
450
                                                               1
                                    subscribers please`
452
      This past Christmas my dad passed away, to hel...
                                                              1
453
      Pls follow this channel!! http://www.twitch.tv...
454
      Lil m !!!!! Check hi out!!!!! Does live the wa...
457
                       Check out this video on YouTube:
                                                               1
      Hey guys, I'm a human.<br /><br />Bu...
461
464
469
      hey its M.E.S here I'm a young up and comi...
                                                              1
470
             Subscribe and Win a CAP<br />
                                                             1
471
                    Check out this playlist on YouTube:
                                                               1
472
      Follow me watch my videos :) Follow me watch m...
473
      Hey guys im a 17yr old rapper trying to get ex...
474
      For all you ladies out there... Check out ...
475
      im M.E.S an aspiring young rapper with high ho ...
480
      https://m.facebook.com/story.php?story_fbid=76...
                                                              1
481
      YouTube collaborator's anyone? subscribe t...
                                                              1
483
      Hey come check us out were new on youtube let ...
484
                      Check out this video on YouTube:
                                                               1
```

```
486
             Check out Berzerk video on my channel ! :D
487
      http://www.ermail.pl/dolacz/UnNfY2I=
                                                              1
489
      Check out this playlist on YouTube:
490
                      Subscribe and like my video please
                                                                1
495
      http://hackfbaccountlive.com/?ref=4436607 psy...
                                                              1
496
                              Check out my SEXY VIDEO :*
                                                                1
498
      hi guys please my android photo editor downloa...
                                                              1
500
      this video has 800+m views<br />and the channe...
503
                                                               1
                                     share your thoughts
504
      My friends wife earns 4000DOLLARS a month , you...
                                                              1
506
      Hello! Do you like gaming, art videos, scienti...
507
                       Check out this video on YouTube:
                                                               1
509
                      Subscribe I'11 subscribe back
                                                               1
511
      There is one video on my channel about my brot...
                                                              1
515
                                                               1
         Who's watching in 2015 Subscribe for me!
516
      Please check out my New Song (Music Video) AD ...
                                                              1
517
                                      LIKE AND SUBSCRIBE
                                                               1
518
                      Look and shares my video please :D
520
      want a sub? tell me about your channel and i w...
                                                              1
524
                   Check out this playlist on YouTube:
                                                               1
526
      https://www.facebook.com/tofikmiedzynB/photos/...
                                                              1
527
      im sorry for the spam but My name is Jenny. I ...
                                                              1
531
      ***** Facebook is LAME and so 2004! Check ou...
                                                              1
533
      if your like drones, plz subscribe to Kamal Ta...
535
      Hey guys check out my new channel and our firs...
537
                       Check out this video on YouTube:
                                                               1
538
      Hello! I'm Marian, I'm a singer from Venezuela...
                                                              1
539
                  Take a look at this video on YouTube:
                                                               1
540
      Add me here...https://www.facebook.com/TLouXmu...
                                                            1
545
      I really ask nicely to view my vids:) I subscr...
                                                              1
546
      Hello Guys...I Found a Way to Make Money Onlin...
                                                            1
548
                                   plese subscribe to me
                                                               1
551
                       Check out this video on YouTube:
                                                               1
554
      Great video by a great artist in Katy Perry! A...
                                                              1
555
                       Check out this video on YouTube:
                                                               1
556
                       Check out this video on YouTube:
                                                               1
557
                                         subscribe to me
                                                               1
560
      Hi everyone! My dream is to have passionate se...
                                                              1
561
                    Check out this playlist on YouTube:
                                                               1
562
      Every weekend a new lyric video of Eminem here...
                                                              1
563
      Dance dance,,,,,Psy http://www.reverbnation.c...
567
                       Check out this video on YouTube:
                                                               1
568
      I agree they are just damn spammers. They suck...
569
                   Please visit this Website: oldchat.tk
                                                                1
570
      Check out my bass cover of hips don't lie ...
                                                              1
571
                       Check out this video on YouTube:
                                                               1
574
      Hey Guys Jaylan Here And I Just Wanted Everybo ...
                                                              1
```

```
577
             Subscribe and u are gonna hear me roar ;)
                                                               1
579
                                                                1
                         How To Make A Lot Of Money Fast
581
      Check out Em's dope new song monster here:...
                                                              1
584
      follower please https://www.facebook.com/lists...
                                                              1
587
                     http://www.twitch.tv/zxlightsoutxz
                                                               1
590
                                                                1
                                     subscribe to my feed
594
                                                               1
                             Pleas subscribe my channel
596
      Hey ! I know most people don't like these kind...
597
                                                               1
                              Check out my music niggas
601
      I personally have never been in a abusive rela...
602
      You guys should check out this EXTRAORDINARY w...
604
      like this comment if your watching in 2015 or ...
606
      Believe that Jesus Christ is your savior for a...
610
      Come and watch my video it is called the odowd...
611
                                                               1
                    Check out this playlist on YouTube:
612
      Hey guys! I've made a amazing Smiley T-Shirt.O...
614
      If you looking for new music to listen to chec...
                                                              1
615
      wanna earn money online without investment...
617
      Watch Maroon 5's latest 2nd single from V (It ...
618
      Can this channel get 500+ subscribers? You can...
619
      HOW DO YOU PUT A PICTURE FOR YOUR IMAGE THINGI...
620
      Follow 4 Follow
                                                   @ Va...
                                                              1
621
      Huh, anyway check out this you[tube] channel: ...
622
                     https://www.facebook.com/teeLaLaLa
                                                               1
624
                                                               1
        http://woobox.com/33gxrf/brt0u5 FREE CS GO!!!!
625
                                                               1
                                          give it a like
630
      need money?Enjoy https://www.tsu.co/emerson_za...
633
      **CHECK OUT MY NEW MIXTAPE**** **CHECK OUT MY ...
635
                     Check out this video on YouTube:lo
                                                               1
637
      I love this!!!!! This is one of my fave songs ...
                                                              1
643
      Please check out my youtube channel! Just uplo...
                                                              1
646
      https://www.facebook.com/photo.php?fbid=543627...
647
      Go to my channel if u want to see a fly gettin...
651
      Media is Evil! Please see and share: W W W. TH...
653
            There are beautiful songs please subscribe
                                                               1
656
      Do you need more instagram followers or photo ...
                                                              1
658
      You guys should check out this EXTRAORDINARY w...
                                                              1
660
               CHECK OUT partyman318 FR GOOD TUNEZ!! :D
                                                                1
661
      like this comment if you' re watching this ...
665
            Check out my channel im 15 year old rapper!
                                                                1
667
      and how many subscribers compared to her over ...
669
      CHECK OUT MY COVER OF LOVE THE WAY YOU LIE PLE ...
                                                              1
670
      Check Out The New Hot Video By Dante B Called ...
672
                                           adf.ly / KlD3Y
                                                                1
673
      <a href="http://www.gofundme.com/Helpmypitbull...</pre>
                                                              1
674
      Hello Guys...I Found a Way to Make Money Onlin...
675
                            SubScribe me pls EMİNEM FANS
                                                                1
```

```
677
            https://www.tsu.co/Aseris get money here !
                                                              1
679
      ***** Facebook is LAME and so 2004! Check ou...
                                                             1
680
                      Check out this video on YouTube:
                                                              1
686
      Hey guys! Im a 12 yr old music producer. I mak...
                                                             1
687
      hey guy if you can please SUBSCRIBE to my chan...
                                                             1
690
      You guys should check out this EXTRAORDINARY w...
                                                             1
692
                      hi guys check my youtube channel
                                                              1
696
      Hey Music Fans I really appreciate any of you ...
                                                             1
697
      If i reach 100 subscribers i will tazz my self...
                                                             1
698
      http://www.amazon.com/Knight-Dawn-cursed-Danie...
                                                             1
701
      Omg can this be the first video on YouTube to ...
702
       I can't believe this I just now watched a...
703
                      Check out this video on YouTube:
                                                              1
704
      I absolutely adore watching football plus I've ...
                                                             1
705
      youtube.com/watch?v=2ASFn9ShgHk&feature=yo...
                                                             1
709
                                     i can to make money
                                                               1
710
      Check out this video on YouTube: <a rel="nofol..."
                                                             1
711
      Check out this video on YouTube: <br />Gotta da...
715
                   Check out this video on YouTube: I
                                                              1
718
                 :// . . / /
                                       314
719
                      Please Subscribe In My Channel →
                                                              1
722
      https://soundcloud.com/jackal-and-james/wrap-u...
                                                             1
723
                      Check out this video on YouTube:
                                                              1
724
      1
725
      hey again if you guys wouldnt mind chacking ou...
                                                             1
726
      Hello everyone :) I know most of you probably ...
729
      Nice to meet You - this is Johnny: 1. If You a...
                                                             1
731
      katy is beautiful. and this song is catchy. I'...
                                                             1
733
      <a href="https://m.freemyapps.com/share/url/10...</pre>
734
               SUBSCRIBE TO MY CHANNEL X PLEASE!. SPARE
                                                               1
735
                   Check out this playlist on YouTube:
                                                              1
736
                              Check my channel, please!
                                                              1
      HUH HYUCK HYUCK IM SPECIAL WHO'S WATCHING ...
738
741
             http://hackfbaccountlive.com/?ref=5242575
                                                              1
742
      Aye homies check out our remix to 50 Cent Your...
                                                             1
746
      please subscribe i am a new youtuber and need ...
                                                             1
747
      Nezo and Ed<br />Like&amp; share this page on f...
                                                             1
748
               subcribe to us an we will subscribe back
                                                               1
750
      *****PLEASE READ**** Hey everyone! I'm a...
                                                             1
751
      Hey youtubers... I really appreciate all of yo...
752
                                         Come subscribe
                                                              1
755
      This guy win dollars sleeping... m m m he love...
                                                           1
757
                      :D subscribe to me for daily vines
                                                               1
758
      plz subscribe to my channel i need subs and if...
                                                             1
759
                             Please check out my vidios
                                                              1
763
                                                              1
                      Check out this video on YouTube:
764
                      https://binbox.io/DNCkM#qT4Q1JB1
                                                              1
```

```
766
      You guys should check out this EXTRAORDINARY w...
                                                              1
769
                           CHECK OUT THE DUBSTEP VERSION
                                                                1
771
                       Subscribe to my channel:) <3
772
          www.marketglory.com/strategygame/lordviperas
                                                               1
773
                       Check out this video on YouTube:
                                                               1
776
      Hey Music Fans I really appreciate any of you ...
                                                              1
777
          Check out this video on YouTube:
                                                               1
779
      pleas subscribe on me for ps4 games video <br ...
                                                              1
780
      Katy perry is and inspirational singer her voi...
                                                              1
782
      Check out this video on YouTube: <a href="http..."
783
                       Check out this video on YouTube:
                                                               1
784
              Check out this playlist on YouTube <br />
                                                               1
785
       hey you ! check out the channel of Alvar Lake !!
787
      https://www.facebook.com/pages/Hiphop-Express/...
                                                              1
789
                                                              1
      hey guys look im aware im spamming and it piss...
790
                  Check out this video on YouTube:hjalp
                                                               1
792
      Terrance. .thank you for serving our country. ...
                                                              1
794
               <br />NOW THAT I HAVE YOUR ATT...
795
                       Check out this video on YouTube:
                                                               1
796
      subscribe now!!!!!! love the song!!!!!! love f...
                                                              1
800
      Can i get views and subscribers for no reason?
                                                              1
801
      Have you tried a new social network TSU? This ...
802
                                        Visit my channel
                                                               1
803
      if you like raw talent, raw lyrics, straight r...
                                                              1
805
      Hey guys whats up? I found this app that lets ...
806
                       Check out this video on YouTube:
                                                               1
      http://www.mediafire.com/download/yvovhafsv5qz...
808
809
      EVERYONE GO AND SHARE youtu be/ARkglzjQuPO ON...
                                                              1
811
      <a href="https://m.freemyapps.com/share/url/50...</pre>
                                                              1
812
                       Check out this video on YouTube:
                                                               1
816
                       Check out this video on YouTube:
                                                               1
817
      Definitley the song for 2010 when im not liste...
                                                              1
818
      Check Out The New Hot Video By Dante B Called ...
826
      The new Makeup Transformation with Integrated ...
                                                              1
834
      Hey check out our new musicvideo ''Lif...
835
      curti? click here ? https://www.facebook.com/...
836
      if i reach 100 subscribers i will go round in ...
                                                              1
837
                                 subscribe like comment
                                                               1
842
      Okay trust me I'm doing a favor. You NEED ...
843
      Hi -this is Johnny: 1. If You already know my ...
845
                          adam b beats check out my page
                                                                1
846
      SO THEN HOW ARE YOU GOING TO CALL YOURSELF A I...
                                                              1
848
                       Check out this video on YouTube:
                                                               1
849
      You guys should check out this EXTRAORDINARY w...
                                                              1
      i love this so much. AND also I Generate Free ...
852
                                                              1
854
      http://www.twitch.tv/jaroadc come follow and w...
855
                       Check out this video on YouTube:
                                                               1
```

```
857
                   Check out this playlist on YouTube:
                                                              1
861
                                                             1
      Finally someone shares the same opinion as me...
862
      Fuck it was the best ever 0687119038 number o...
863
      Hey, check out my new website!! This site is a ...
864
      WHATS UP EVERYONE!? :-) I Trying To Showcase M...
                                                             1
867
      Fruits and vegetables give you longer lasting ...
                                                             1
869
                                                              1
                   Check out this playlist on YouTube:
870
      http://www.ebay.com/itm/131338190916?ssPageNam...
871
            Subscribe me, I will? subscribe you back!!!
                                                                1
872
      You guys should check out this EXTRAORDINARY w...
                                                             1
873
      FREe ITunes Gift card http://shhort.com/a?r=x6...
874
      Hey guys! Check this out: Kollektivet - Don't ...
875
      Hey Youtubers and All Music lover's, Guess...
885
      Hey guys! My mom said if i got 100 subs before...
                                                             1
886
      CHECK OUT THIS DOPE CHANNEL!
                                       phenomenallyri...
888
                              Plizz withing my channel
                                                              1
890
                                                              1
                    Check out this playlist on YouTube:
892
                       Check out this video on YouTube:
                                                              1
893
                       Check out this video on YouTube:
                                                              1
897
      Man she is hot in this one, male companions vi...
                                                             1
900
      Need money? check my channel and subscribe, so ...
                                                             1
902
                                                              1
                    Check out this playlist on YouTube:
903
                                                              1
              Subscribe to me plz plz plz plz plZ
908
      Still amazing this song!! I did a French Kpop ...
                                                             1
909
      I did a cover if u want to check it out THANK ...
910
                               Subscribe to my channel
                                                              1
      You guys should check out this EXTRAORDINARY w...
912
914
      IIIIIIIIII LOVE THIS SHAKE IT SONG OH SORRY E...
                                                             1
915
      https://www.facebook.com/photo.php?v=448317985...
                                                             1
916
      http://thepiratebay.se/torrent/6381501/Timothy...
                                                             1
919
      Hi guys my name is Dylan and I do IRL football...
                                                             1
920
      Hey! I'm a 16 Year old rapper from Texas I...
                                                             1
921
      sorry for the spam yall I know it's annoying. ...
922
      Hi guys !! Check Out My Remixes !! Thanx Y...
                                                             1
926
      Check out this video on YouTube:but I'm no...
                                                             1
927
      Please help me go here http://www.gofundme.com...
931
                                                              1
                        Like this comment for no reason
935
      visit " ww estiloproduction com " be...
                                                             1
936
                             Subscribe To Mê Please Guys
                                                                1
937
      I KNOW YOU MAY NOT WANT TO READ THIS BUT pleas...
                                                             1
942
      PLEASE CHECK OUT MY VIDEO CALLED " WE LOVE ...
944
      Hey, I am doing the Forty Hour famine so I&#39...
                                                             1
945
      Plz subscribe to my channel and I will subscri...
946
       Follow me on twitter & amp; IG: __killuminati94
                                                              1
950
      http://tankionline.com#friend=cd92db3f4 great ...
                                                             1
951
               CHECK OUT MY MUSIC VIDEO ON MY CHANEL!!!
                                                               1
952
                        Like this comment for no reason
                                                              1
```

```
954
      PLEASE VOTE FOR ME FOR THE WET SEAL MODEL 2015...
                                                              1
957
      coby this USL and past :<br /><a href="http://...
                                                              1
961
      share and like this page to win a hand signed ...
962
      RIHANNA - POUR IT UP (VINCENT T. REMIX) RIHANN...
967
                       Check out this video on YouTube:
                                                               1
969
      Subscribe to my channel <br />Tweet &amp; Foll...
                                                              1
970
      Check out this playlist on YouTube: <br /><br ...
                                                              1
971
                       Check out this video on YouTube:
                                                               1
972
      YAY IM THE 11TH COMMENTER!!!!!
                                                              1
973
      Show your AUBURN PRIDE HERE: http://www.teespr...
                                                              1
976
        Eminem is the king of rap Micheal Jackson i...
977
                    Check out this playlist on YouTube:
                                                               1
978
                    Follow me on Instagram. _chris_cz
                                                               1
979
      CHECK OUT MY YOUTUBE VIDEOS FOR FUNNY AND COOL ...
                                                              1
980
      <a href="https://www.facebook.com/groups/10087...</pre>
                                                              1
982
                  subscribe to my channel yo - DJ Feelz
                                                               1
983
      man check out the raps on my channel im better ...
                                                              1
984
      Check out this funny video " Cereal Box Kn...
985
      Hello from Russia comes to the channel subscribe
                                                               1
987
      My videos are half way decent, check them out ...
988
         plz i wilsubscribe me frndzzl subscribe u back
                                                                1
989
                                                                1
                                            subscribe my
990
                                                                1
                        Hay dakota u earned a subscribee
993
          subscribe to my channel /watch?v=NxK32i0HkDs
                                                                1
994
                       Check out this video on YouTube:
                                                               1
1000
      https://www.facebook.com/SchoolGeniusNITS/phot...
1004
      watch?v=ARkglzjQuPO Like this comment and shar...
                                                              1
1007
                https://www.surveymonkey.com/s/CVHMKLT
                                                               1
1008
     No long paragraph just check out my song calle...
                                                              1
1009
     https://www.facebook.com/nicushorbboy add mee ...
                                                              1
1010
      Subscribe my channel I RECORDING FIFA 15 GOAL...
                                                              1
1011
                                                               1
                       Check out this video on YouTube:
1012
                       Check out this video on YouTube:
                                                               1
1014
      Thumbs up if FE-FE-FE-FE-FEGELEIN brought u here
                                                               1
1019
                              SUBSCRIBE ME AND I REQUITE
                                                                1
1020
      i been working so hard for the past 60 days to...
                                                              1
1021
                      Hi. Check out and share our songs.
                                                                1
1023
     Hello everyone, It Is not my intention to spam ...
                                                              1
1024
      this is the 4th most watched video on youtube...
1025
                              Check out my SEXY VIDEO :*
                                                                1
1028
       Once you have started reading do not stop. If...
                                                              1
1032
                       Check out this video on YouTube:
                                                               1
1033
     KATY PERRY, I AM THE "DÉCIO CABELO", "DECIO HA...
                                                              1
1036 https://www.facebook.com/pages/Mathster-WP/149...
                                                              1
1038
                                                              1
     If interested in making extra money by interne...
1039
                 https://viralangels.com/user/d4aaacwk
                                                               1
1043
     Thank you KatyPerryVevo for your instagram lik...
                                                              1
```

```
http://thepiratebay.se/torrent/10626048/The.Ex...
1044
                                                             1
1047
                                                              1
                       Check out this video on YouTube:
1048
      check out our bands page on youtube killtheclo...
                                                             1
1049
      HAPPY BIRTHDAY KATY :) http://giphy.com/gifs/b...
                                                             1
1050
                      sub me if you dont like the song
                                                              1
1051
     Hello everyone :) I know most of you probably ...
                                                             1
1055
     Hi guys i sell Jack Daniel's Hard Back Cover C...
                                                             1
1056
     hey guys!! visit my channel pleaase (i'm searc...
1057
                      Check out this video on YouTube:
                                                              1
1059
     https://soundcloud.com/j-supt-fils-du-son/fuck...
1063
           Pleas subscribe GamezZ MTA my channel<br />
                                                              1
1064
     hey its M.E.S here I'm a young up and comi...
1067
      I just wanna see how many people like this com...
                                                             1
1068
                   Check out this playlist on YouTube:
                                                              1
1069
                           subscribe me if u love eminem
                                                               1
1070
     plz check out fablife / welcome to fablife for...
                                                             1
1076
     Check out this video on YouTube:
                                            <br /...
1077
                         subscribe to my channel who can
1078 share and like this page to win a hand signed ...
1080
     subscribe me plzzzzzzz plzzzzzzzzzzzzzzzzzzz...
                                                             1
1081
     Hey Guys this is Glamour Beauty! I just starte...
                                                             1
1082
     VOTE FOR KATY FOR THE EMAs! #KATYCATS http://...
1083
                      Check out this video on YouTube:
                                                              1
1084
      ayyy can u guys please check out my rap video ...
1086
      Check out my drum cover of E.T. here! thanks -...
1087
                                        Sub my channel!
1088
     Hi I'm lil m !!! Check out love the way yo...
1090
      I know that maybe no one will read this but PL...
                                                             1
1093
                 los invito a subscribirse a mi canal
                                                              1
1096
     Also check out D.j.j where do i go now and roa...
                                                             1
1097
                       Check out this video on YouTube:
                                                              1
1098
            COME SUBSCRIBE TO MY CHANNEL! ;-) PLEASE!!
                                                               1
     Echa un vistazo a la remezcla! / Check out the...
                                                             1
1103
     Free itunes $25 giftcard codes: http://shhort...
1104
                                                              1
1105
     check out my rapping hope you guys like it ht...
1107
                check out my new EM cover video trailer
                                                               1
1108
        Haha , Miley Cyrus has done it once again T...
1117
      HI! CHECK OUT OUR AWESOME COVERS! AND SAY WHAT...
1118
                   Check out this playlist on YouTube:
                                                              1
1119
                       Check out this video on YouTube:
                                                              1
      http://www.bubblews.com/news/6401116-vps-solut...
                                                             1
1123
      Help me get 10000000 subscribers by tomorrow!<...
1124
                                                             1
       <br />Please help me get 100 subscribers by t...
1125
     Tuto to subscribe to my channel because you sh...
                                                             1
1126
      Wanna Laugh??? Please SUBSCRIBE to our channel!!!
                                                               1
1130
     Hey guys and girls check out Comedy Recipe for ...
                                                             1
```

```
1132
     hey guys im 17 years old remixer and producer ...
                                                             1
1134
                                                              1
                      Check out this video on YouTube:
1135
      Could you please check out my covers on my cha...
1137
                                                              1
                       http://shhort.com/a?r=Jt2ufxHxc
1138
       https://www.reverbnation.com/slicknick313/songs
                                                              1
1142
     https://www.indiegogo.com/projects/cleaning-th...
                                                             1
1143
      https://www.facebook.com/photo.php?fbid=313454...
                                                             1
1145
      I shared my first song " I Want You" ,...
1146
                                                               1
                                      dude check out psy
1147
      Click For iTunes code http://shhort.com/a?r=OL...
                                                             1
1149
      Help Please!! http://www.gofundme.com/RJanima...
1150
                   Check out this playlist on YouTube:
                                                              1
1151
     Hey? Everyone Please take a moment to read thi...
1152
      PLEASE DON' T LIKE THIS COMMENT IF YOU ARE ...
                                                             1
1154
                                                             1
      Hey guys! Please join me in my fight to help a ...
1156
      Support the fight for your 4th amendment right...
                                                             1
1159
     follow me---> https://twitter.com/f0llowsho...
                                                             1
1160
      check out my Eminem & amp; Kid Cudi M a s h up ...
1165
                                                              1
                                       Check my channel
1169
      I Know Y' all Can Check Out Amy Music Becau...
1171
                      Check out this video on YouTube:
                                                              1
1172
    Hello! I'm kind of new to Youtube, And soon i'...
                                                             1
      Check out this video on YouTube: Facebook lhudy...
1175
                                                             1
1178
      Such a good song ans Katy sounds great over th...
                                                             1
1181
                                                              1
        You should check my channel for Funny VIDEOS!!
1186
      Please.. Check my channel out:) I subscribe ba...
1188
      ---->>>> https://www.facebook.co...
1191
      Anybody who subscribes to me will get 10 subsc...
1197
            CHECK OUT THESE LYRICS /watch?v=yUTTX04oyqQ
                                                               1
1201
      You guys should check out this EXTRAORDINARY w...
                                                             1
1204
         :) I'11 subscribe to you. You look Nice :)
                                                               1
1205
                                                              1
                       http://www.twitch.tv/daconnormc
1209
                      Check out this video on YouTube:
                                                              1
1212
      Like this comment if you are watching on a phone
                                                              1
1216
      You guys should check out this EXTRAORDINARY w...
                                                             1
1219
                Check me out! I'm kyle. I rap so yeah
                                                              1
1220
      reminds me of this song https://soundcloud.com...
                                                             1
1221
     hello friends. i am a young 15 year old rapper...
                                                             1
1224
      https://www.change.org/p/facebook-twitter-yout...
1226
      hi everyone this is cool check out sexy and i ...
1227
      http://www.amazon.co.uk/gp/offer-listing/B00EC...
1229
             http://hackfbaccountlive.com/?ref=4344749
                                                              1
1230
     Katty perry please say in one of your new vide...
1232
                                                             1
     Check out my youtube channel for cool beatboxi...
1233
     Hey guys subscribe to my chanel and i will sub...
                                                             1
1239
                        Check out my acoustic channel
                                                              1
1245
      Subscribe and like to me for more how to video...
```

```
1246
               <br /> /
                              \
                                   <br ...
1247
     http://www.rtbf.be/tv/emission/detail_the-voic...
1248
                                           like please
                                                            1
1249
     hey its M.E.S here I'm a young up and comi...
1253
                    https://www.tsu.co/KodysMan plz ^^
                                                            1
1255 DOWNLOAD RAPID FACEBOOK FOR FREE NOW https://p...
                                                           1
1259
     check out you tube keithlinscotts one word kei...
                                                           1
1260 PLEASE CHECK OUT THIS VIDEO CALLED " WE LO...
1262 hahahahah
                   :D like vines ? Subscribe to m...
1264
     please suscribe i am bored of 5 subscribers tr...
                                                           1
1266
     Check out my remix to Tyga's - Molly ft. W...
1268
                      Check out this video on YouTube:
                                                            1
1269
     Hiya I just started YouTube and it would mean ...
1270
                  Please subscribe to us and thank you
                                                            1
1274
                                                            1
       Hey plz check out my music video. Thanks!! :-)
1277 http://www.wattpad.com/story/26032883-she-can-...
                                                           1
1278 hahahahah
                   :D like vines ? Subscribe to m...
                                                         1
1281
     if watching in 2015 subscribe to <span class="...
1285 https://www.tsu.co/ToMeks Go register ;) free ...
1286
     Discover a beautiful song of A young Moroccan ...
                                                           1
1288 Im gonna share a little ryhme canibus blows em...
1289
     3m subscribers but look at the views its 700 m...
1291
         I am so awesome and smart!!! Sucscribe to me!
                                                            1
1292
     Our Beautiful Bella has been diagnosed with Wo...
1296
     *for 90's rap fans* check out my Big Pun ...
1298
                   Check out this playlist on YouTube:
1301
      CHECK OUT THE NEW REMIX !!! <br />CLICK CLICK !!
                                                            1
1302
     I #votekatyperry for the 2014 MTV #VMA Best Ly...
                                                           1
1303
     Check Out LEANDRUS - PLAYTIME It's awesooo...
                                                           1
1304 tryna work with some rappers check out the one...
                                                           1
1305
                 Check out this playlist on YouTube:pl
                                                            1
1307
     if you need youtube subscriber mail hermann bu...
1309 hey guys i really want to go to a katy perry c...
1311
     Subscribe me please. i'11 promise i'11...
                                                           1
1312 View 851.247.920<br /><br /> Best youtube Vide...
1313
            http://hackfbaccountlive.com/?ref=4604617
                                                            1
1314
                            Check out my covers please!
                                                             1
1315
     EVERYONE PLEASE SUBSCRIBE TO MY CHANNEL OR CAN...
                                                           1
1318
     Share this video.. This song can beat PSY - Ga...
                                                           1
      •••• My name is George and let me tell u EMIN...
1320
     You guys should check out this EXTRAORDINARY w...
1321
                      Check out this video on YouTube:
1322
                      Check out this video on YouTube:
                                                            1
1
1326 if you like roblox minecraft world of warcraft...
                                                           1
1327
     https://www.facebook.com/pages/Nailey-nicool/6...
                                                           1
1328
     marketglory . com/strategygame/andrijamatf ear...
```

```
1330
                                subscribe to my chanell
                                                               1
1331
      Like this comment, guys i just started up a ne...
                                                              1
1335
      Hello everyone :) I know most of you probably ...
1336
                                                                1
                            Check out my channel please.
1338
          Sub to my channel visuelgamingzNL I sub back
                                                               1
1339
                                                               1
                      Suscribe My Channel Please XD lol
1340
                       Check out this video on YouTube:
                                                               1
1341
                       Check out this video on YouTube:
                                                               1
1342
           Check out this playlist on YouTube: I tried
                                                               1
1344
      3 yrs ago I had a health scare but thankfully ...
      Dear friends please subscribe to my channel I \dots
1345
1346
                           Go check out eminem survival.
                                                                1
1349
      Check out these Irish guys cover of Avicii&#...
1350
                       Check out this video on YouTube:
                                                               1
1352
     Free my apps get 1m crdits ! Just click on the...
                                                              1
1354
      The projects After Effects, Music, Foto, Web s...
                                                              1
1357
      PLEASE SUBSCRIBE ME!!!!!!!!!!!!!!!!!!!!!!...
                                                              1
1359
      What free gift cards? Go here http://www.swag...
1361
               https://www.facebook.com/myfunnyriddles
                                                               1
1363
      More... http://www.sunfrogshirts.com/Sunglass-...
                                                            1
1364
                       Check out this video on YouTube:
                                                               1
1368
      Alright ladies, if you like this song, then ch...
                                                              1
1369
      Hey, hit this shit up while yall can, they kil...
                                                              1
1371
                          Aslamu Lykum... From Pakistan
                                                             1
1378
                                                               1
                                    Subscribe My Channel
1380
     PLEASSSSSSSSSSSSSSS SUBSCRIBEEEEEEEE MY CHA...
1381
      Please go in and see our Channel and subscribe...
                                                              1
1383
      Do not like this comment if you are not watchi...
1384
      Check the shit out on my channel <br /> <br /> <br /> <b...
1385
                       Check out this video on YouTube:
                                                               1
1387
      this song is awesome. these guys are the best...
                                                             1
1389
      yo I know nobody will probably even read this ...
      ********OMG Facebook is OLD! Check out
1393
      SIMPLY PUT, OUR CUSTOMERS LOVE US... and so wi...
1395
                Check out this video on YouTube:<br />
                                                               1
1397
      Abomination! Subscribe if you agree : | party h...
1398
                I like This Comment and do not kill :P
                                                               1
1399
      Hey guys can you check my channel out plz. I d...
                                                              1
1400
                                                                1
                     adam b beats check out my page 2013
     EMINEM FANS!!! - Check Out The New Song &quot...
                                                              1
      Hi there~I'm group leader of Angel, a rookie K...
1404
1407
                    Check out this playlist on YouTube:
                                                               1
1408
                              Please look at my channel
                                                               1
1414 Hey guys go to check my video name "growtopia ...
                                                              1
1415 https://www.facebook.com/eeccon/posts/73394924...
                                                              1
1416
      New way to make money easily and spending 20 m...
                                                              1
1421
      I know that maybe no one will read this but PL...
```

```
1422
                       Check out this video on YouTube:
                                                               1
1423
                                     subscribe to me :)
                                                               1
1425
                          if u love rihanna subscribe me
1426
      Check Out The New Hot Video By Dante B Called ...
1428
                    CHECK OUT MY CHANNEL ...
1430
     https://apps.facebook.com/my-polls/utsitcompet...
                                                              1
1431
      Check out this video on YouTube: <br /><br /><b...
1436
                      wtf. subscribe my channel thanx ;)
                                                                1
1439
     http://www.avaaz.org/po/petition/Youtube Corpo...
1440
      :: ATTENTION : WE NEED 10 Million Views More f...
1442
        He gets more views but has less subscribers lol
                                                                1
1443
     check men out i put allot of effort into my mu...
1444
      It's so hard, sad : ( iThat little child Actor ...
1446
                          if u love rihanna subscribe me
                                                                1
1448
                                                                1
                      Hi. Check out and share our songs.
1449
                       Check out this video on YouTube:
                                                               1
1453
      GUYS SHARE THIS VIDEO!!!!! HE must have 1.000...
                                                              1
1455
       Hey everyone!! I have just started my first Y...
                                                              1
1457
     Hello. I only made ONE Eminem song on my chann...
1461
      Maybe no one will probably read this. But just...
1463
              Like & amp; Subscribe /watch?v=5tu9gN11310
                                                                1
1464
                             Suscribe my channel please
                                                               1
1465
                                                               1
                                  I subscribed it<br />
1466
     Part 5. Comforter of the afflicted, pray for u...
                                                              1
1468
      Www.youniqueproducts.com/joannagordon Younique...
1470 Nice! http://www.barnesandnoble.com/s/BDP?csrf...
1475 Check out my Music Videos! Fuego - U LA LA Rem...
                                                              1
1478 Hi! I would appreciate it if you all could hel...
                                                              1
1479
      Stop Wasting Up Your Time and Get Paid To Mes...
                                                              1
1480
     Top three Shakira songs (my choice) <br /><br ...
1482
      ...subscribe... ...to my... ...
1484
                                                               1
                       Like this comment for no reason.
1487
                                SUBSCRIBE TO MY CHANNEL
                                                               1
1488
      please like :D https://premium.easypromosapp.c...
                                                              1
1489
      Please do buy these new Christmas shirts! You ...
                                                              1
1493
      Go check out my rapping video called Four Whee...
1494
                       Check out this video on YouTube:
                                                               1
1495
     http://www.googleadservices.com/pagead/aclk?sa...
                                                              1
1496
      Check Out The New Hot Video By Dante B Called ...
1497
     " HELP THE HUMANITY WITH YOUR SIGN IN TO T ...
1498
     THIS IS A COMPETITION TO MEET MY IDOLS, IT WOU...
1499
     Hey, join me on tsū, a publishing platform whe...
1501 Hey everyone. Watch this trailer!!!!!!! http...
                                                              1
1504 Hi.. Everyone.. If anyone after real online wo...
1507
       Hey youtubers... {**}I really appreciate all ...
                                                            1
1508
               Check out Melbourne shuffle, everybody!
                                                               1
1510 Part 2. Holy Mary, pray for us Holy Mother of ...
                                                              1
```

```
Hello to everyone! Please check out my video: ...
1515
      do you want to make some easy money? check out...
      everyone come and check out the new GTA 5 Game...
1517
      see this <br /><a href="http://adf.ly">http://a...
1518
                       Check out this video on YouTube:
                                                               1
1519
      Hello Guys...I Found a Way to Make Money Onlin...
                                                            1
1520
            SUBSCRIBE MY CHANNEL PLEASE LOL PRO PLAYS)
                                                               1
1522
     https://www.facebook.com/profile.php?id=100007...
                                                              1
1523
     FOLLOW MY COMPANY ON TWITTER thanks. https:/...
                                                              1
1524
                       Check out this video on YouTube:
                                                               1
1525
      I make guitar covers, please have a look at my...
1526
      I made a gaming channel (Unique right?) :L Ang...
1527
                    Check out this playlist on YouTube:
                                                               1
1529
                    Check out this playlist on YouTube:
                                                               1
1530
      Check out this video on YouTube: <br />&quot; Th...
                                                              1
1531
                              Check Out Daneja Good Girl
                                                                1
1532
                      follow me on instagram bigboss286
                                                               1
1534
      Also LuckyMusiqLive she probably could help u ...
1535
1542
                       Check out this video on YouTube:
                                                               1
1543
      http://psnboss.com/?ref=2tGgp3pV6L this is the...
                                                              1
1545
      Please check out and send to others Freedom an...
                                                              1
1546
                     eminem new song check out my videos
                                                                1
1548
      Hi everyone! Do you like music? Then why not c...
                                                              1
1550
      Hello everyone :) I know most of you probably ...
1553
                         http://www.gofundme.com/gvr7xg
1556
        Perhaps you have seen the newest Miley Cyrus...
1557
      Check out this video on YouTube:jjiwajwkajajqj...
                                                              1
1562
      http://minhateca.com.br/mauro-sp2013/Filmes+Se...
                                                              1
1564
      You guys should check out this EXTRAORDINARY w...
                                                              1
1569
                           Nice song .See my new track.
                                                               1
1575
                  GTA V $20 FIFA 14 $15 PS4 $200...
1576
           Check out this playlist on YouTube: Central
                                                               1
1578
                  CHECK OUT MY CHANNEL BOYS AND GIRLS ;)
1579
      guys please subscribe me to help my channel gr ...
                                                              1
1580
      check out our bands page on youtube killtheclo...
                                                              1
1581
      Please help me give my son a grave. http://ww...
                                                              1
1582
                       Check out this video on YouTube:
                                                               1
1584
                        http://shhort.com/a?r=HuPwEH5ab
                                                               1
                       Check out this video on YouTube:
1586
                                                               1
1588
                       Check out this video on YouTube:
                                                               1
1589
      You guys should check out this EXTRAORDINARY w...
                                                              1
1590
      http://www.billboard.com/articles/columns/pop-...
1592
                          SUBSCRIBE TO ME! I MAKE MUSIC!
                                                                1
1593
     LMFAO is CRAZY DOPE!!! CHeck out my music on m...
                                                              1
1594
      WOW VERY NICE CONGRASULATION I LIVE SO MUCH ht...
1596
        Please become my first subscriber.
                                                               1
```

```
check out "starlitnightsky" channel to see epi...
1598
1599
                       Check out this video on YouTube:
                                                              1
1604
     even without make up she is still hot
                                                              1
1605
              subscribe to itz recaps and above diddle
                                                              1
1608
     Im a RAPPER/SONGWRITER, check my video PLEASE...
                                                             1
1609
     You guys should check out this EXTRAORDINARY w...
                                                              1
1610
     watch youtube video " EMINEM -YTMA artist ...
                                                              1
1613 Hello everyone :) I know most of you probably ...
1615
      if eminem gets 1 penny per view he would have ...
                                                              1
1617
      subscribe to me for call of duty vids and give...
1620
     You guys should check out this EXTRAORDINARY w...
1621
                       Check out this video on YouTube:
                                                              1
1622
                       Check out this video on YouTube:
                                                              1
1623
       subscribe to me and I wil subscribe to you back
                                                               1
1624
      I know that maybe no one will read this but PL...
                                                              1
1625
     https://www.facebook.com/pages/%D8%AA%D8%AD%D9...
                                                              1
1627
                       Check out this video on YouTube:
                                                              1
1628
                       Check out this video on YouTube:
                                                               1
1630
                       Check out this video on YouTube:
                                                              1
1631
      Please check out my New Song (MUSIC VIDEO) AD ...
                                                              1
1632
                   follow me on twitter: freyacumqueen
                                                              1
1636
      subscribed :) btw you have a good style keep i...
1637
                       Check out this video on YouTube:
                                                               1
1639
                 Subscribe if you are watching in 2015
                                                               1
      The TREU DETECTIVE alternate ending! __ http:/...
1641
1643
                   Check out this playlist on YouTube:
                                                               1
1645
                       Subscribe to me for clean Eminem!
1646
                   Thank you. Please give your email.
                                                              1
1647
      Check out this video on YouTube: <br />Looking ...
                                                              1
1649
                            Thumbs up if shrek is gay
                                                              1
1650
     please look up DHG SONGS this is my playlist w...
                                                              1
1659
                                                              1
                Get free gift cards and pay pal money!
1660
     Please help me go to college guys! Thanks from...
1663
      please read this please! i am a country singer...
                                                              1
1665
      please like: http://www.bubblews.com/news/927...
1667
                       Check out this video on YouTube:
                                                              1
      Hey Music Fans I really appreciate any of you \dots
1669
                                                              1
1672
                       Check out this video on YouTube:
                                                              1
1677
      I know someone will see this I have a dream...
                                                             1
1678
                       Check out this video on YouTube:
                                                              1
1681
     Hey Guys, I know you tend to skip these commen...
1685
       HOW MANY THUMBS UP FOR LOUIS SAVING THE DAY!?!?
                                                              1
1687
      Check out our vids, our songs are awesome! And...
                                                              1
                                                              1
1688 Hey guys please just spent one minute for me:)...
1689
                                                              1
     Please give us a chance and check out the new ...
1690
      #nowplaying "Weekendmix" track 04 : Katy Perry...
                                                              1
1692 You guys should check out this EXTRAORDINARY w...
```

```
1693
       Check out this playlist on YouTube:<br /><br />
                                                              1
1694
     Men stop being naive idiots believing in love ...
                                                             1
1695
      Check out our app to solve all your party/drun...
      How did you know that people makes another acc...
1696
1699
      if you want to win money at hopme click here <...
                                                             1
1701 http://www.twitch.tv/tareko100 Follow him on t...
1703 hi beaties! i made a new channel please go che...
1704
     Check out my Music Videos! and PLEASE SUBSCRIB...
1705
      Meet The Richest Online Marketer NOW CLICK : ...
1706
       Facebook account HACK!! http://hackfbaccountl...
1707
                                Subscribe to My CHANNEL
                                                              1
1708
      this song is so addicting. the hook is dope an...
1709
                      :D subscribe to me for daily vines
                                                                1
1710
     Katy has the voice of gold. this video really ...
                                                             1
1711
     Hey everyone, I'm Dakoda Bigelow. I'm...
                                                             1
1714
                     check out mah girl it duh shit yo
                                                              1
1716
                       Check out this video on YouTube:
                                                              1
1717
      look at my channel i make minecraft pe lets pl...
1718
                   Check out this playlist on YouTube:
                                                              1
1719
      She loves Vena. trojmiasto.pl/Vena-Bus-Taxi-o5...
1720
     EHI GUYS CAN YOU SUBSCRIBE IN MY CHANNEL? I AM...
                                                             1
1723
      I love katy fashions tiger, care to visit my b...
1724
     Listen...Check out Andrew Guasch - Crazy, Sick...
                                                           1
1725
                     Check out this video on YouTube:
                                                              1
1726 Plz help me getting 1.000 Subscribers tonight/...
      Check out this video on YouTube:opponents mm < ...
1728
      Check out this video on YouTube:it is a old tr...
1729
                             http://binbox.io/1FIRo#123
                                                              1
1730
                      Check out this video on YouTube:
                                                              1
                                                            1
1732
     yo I know nobody will probably even read this ...
1735
                 CHECK OUT Eminem - Rap God LYRIC VIDEO
                                                                1
1736
      check out eminem latest track survival if u didnt
                                                                1
     For latest movies 2014 please visit this site ...
1738
     Please share and help to my Friend! http://www...
                                                             1
1741
      j aiiima plzzz https://www.facebook.com/pages...
1742
                                    CHECK OUT MY CHANNEL
                                                                1
1745
                Please subscribe to my channel! Thanks!
                                                              1
1750
     Usually guys I would vote people like this dow ...
                                                             1
1751
      EVERYBODY PLEASE VOTE KATY AT EMA 2014 !!!!!
      You guys should check out this EXTRAORDINARY w...
1755
      I really love this video.. http://www.bubblews...
1757
                      Check out this video on YouTube:
                                                              1
1760
                      Check out this video on YouTube:
                                                              1
     You guys should check out this EXTRAORDINARY w...
1764
                                                             1
                                                             1
1765
      i am from Brazil please subscribe my channel 1...
1769
     https://www.facebook.com/pages/Komedi-burda-ge...
1770
                         We can have a party next share
                                                              1
```

```
1772 hey guys i know you wanna skip over this but p...
1773 PLEASE CHECK OUT MY VIDEO CALLED " WE LOVE...
1779
                Check out my YouTube channel I can rap
                                                             1
1780
                      Check out this video on YouTube:
                                                             1
1782
                      Check out this video on YouTube:
                                                             1
1783
                      Check out this video on YouTube:
                                                             1
1784
     this song gives me strength! love her lyrics. ...
                                                            1
                                                            1
1785
     You guys should check out this EXTRAORDINARY w...
1786
           Check out this playlist on YouTube:hbbhhhgh
                                                             1
1787
                       like this comment then type 1337
1792
     katy perry will u sit on my face please. it wo...
                                                            1
1794
     Like getting Gift cards..but hate spending the...
                                                            1
1795
                      Check out this video on YouTube:
                                                             1
1797
     we are 14 year old boys we are trying to enter...
                                                            1
1798
     Hey Katycats! We are releasing a movie at midn...
                                                            1
1799
                         1 753 682 421 GANGNAM STYLE ^^
                                                              1
1800 Hey guys please check out my new Google+ page ...
1802 could you guys please check out my channel for...
                                                            1
1804 Yea stil the best WK song ever<br />Thumbs up ...
                                                            1
1806 Guys lmfaois going to have a reunion on June/2...
                                                            1
1807 My three bigger secrets are: I don't think I'm...
1808
     If you could take time & amp; spare a min to re...
                                                            1
1810 Does anyone here use gift cards like Amazon, i...
1811
                    check out my page ADAM B BEATS 2013
                                                              1
1814 my sister just received over 6,500 new <a rel=...
     Hey! I'm NERDY PEACH and I'm a new youtuber an...
1815
                                                            1
1818 ALL SCHOOL DROP OUTS I KNEW AS FRIENDS BEFORE ...
1822 EVERYONE PLEASE GO SUBSCRIBE TO MY CHANNEL OR ...
1824
                         Check out this video on YouTu
                                                             1
1827
     Can you check my videos please? Don't hate me ...
                                                            1
1828
     Hi everyone! Do you like music? Then why not c...
1830
                 just for test I have to say murdev.com
1834
     Waka Waka!:D
                     Check out my new HALLOWEEN VIDE...
                                                            1
1836
     Hey Music Fans I really appreciate any of you ...
                                                            1
1837
               Subscribe me and i subscribe you back!!
                                                             1
                                          adf.ly /KlD3Y
1838
                                                              1
1842
     Look at the pictures, if not difficult http://...
                                                            1
1843
                              Check my first video out
                                                             1
     Please friend read my book and repass: http://...
1847
     hi guys please check out my vids , i will prom...
1850
                     subscribe to my channel people :D
                                                             1
1851
                                  check out my playlist
                                                              1
1852
     do you want to make some easy money? check out...
                                                            1
1855
                     Hi. Check out and share our songs.
                                                              1
1860
      CHECK OUT THIS NEW VIDEO I MADE CALLED " W...
                                                            1
1861 Hey guys love this but check out this girl nam...
```

```
1862
                                                              1
                               please visit my channel
1863
      Hey youtubers... I really appreciate all of yo...
                                                           1
1866
            Check out my channel for some lyricism...
1867
                                                              1
                               like this comment please
1868
      Gusttavo Lima Você não me conhece <br />Check ...
                                                             1
1870
                      Check out this video on YouTube:
                                                              1
1871
     Hi everyone! Do you like music? Then why not c...
                                                             1
1872
               Incmedia.org where the truth meets you.
                                                              1
1874
      I hope everyone is in good spirits I'm a h...
                                                             1
1878
     https://soundcloud.com/artady please check my ...
                                                             1
1879
     If I get 300 subscribers by tomorrow I'll do a...
1880 YouTube/codytolleson for awesome videos I'll s...
                                                             1
1883 Hi there, have you heard about DribbleProShot?...
                                                             1
1886
     Recommend: Apple iPad 4th Gen 32GB Unlocked W...
1887
      get GWAR to play 2015 superbowl http://www.ch...
1889
                       Please check out my vidios guys
                                                              1
1890
     help me click on the subscribe Mai Nguyen, tha ...
                                                             1
1891
                     Check out this video on YouTube:
                                                              1
1892 everyone please come check our newest song in ...
1894
      /watch?v=Dtqcftr1Fac JUSTIEN BIEBER CAR 2013. ...
                                                             1
1895
      SEE SOME MORE SONG OPEN GOOGLE AND TYPE Shakir...
1896
                      Check out this video on YouTube:
                                                              1
1898
      O peoples of the earth, I have seen how you pe...
                                                             1
1899
     WOW muslims are really egoistic... 23% of th...
1900 WAYS TO MAKE MONEY 50k Per Month Search google...
1902 Hi everyone. We are a duo and we are starting ...
1903
     Check out my dubstep song "Fireball", made wit...
                                                             1
1905 Check out my covers I have a video coming out ...
                                                             1
1906
       Check out this playlist on YouTube: <br /> <br />
                                                              1
1909 People, here is a new network like FB...you re...
                                                           1
1910 Wats Good Go Check Out My Music On Da Channel ...
                                                             1
1912
                    Thumbs up if your watching in 2015
                                                              1
1913 You guys should check out this EXTRAORDINARY w...
1917 YO GUYS SORRY IF THIS ANNOYS YOU!!! BUT CHECK ...
                                                             1
1919 EVERYONE PLEASE SUBSCRIBE TO MY CHANNEL OR CAN...
1921
     Northland Paranormal Society is now on YouTube...
1923
      I really love watching football and also I've ...
                                                             1
1926
                      Check out this video on YouTube:
                                                              1
1928
      Could Spanish people understand this?<br /><br...
                                                             1
1929
      Help shakira's waka waka be the first song...
1930
                         Hello I' am from Palastine
                                                              1
1934
                 Take a look at this video on YouTube:
                                                              1
1940 You guys should check out this EXTRAORDINARY w...
                                                             1
1941
      Check Out The New Hot Video By Dante B Called ...
                                                             1
1946
     Check out this video on YouTube:<br /><br />Em...
                                                             1
1949
                      Can anyone sub to my channel? :D
                                                              1
1950 Lol check out my chanell and subscribe please ...
```

```
1953 Hey guys. I am a very small YouTuber I upload ... 1
1955 Hi Guys! check this awesome EDM & DM; House mi... 1
```

```
[28]: def your_labeling_rules(x):
          # Convert text to lowercase
          x = x.lower()
          # Define your rules for classifying as NOT_SPAM
          not_spam_rules = [
                "view" in x,
                "song" in x,
      #
                len(x) < 30
          1
          # Define your rules for classifying as SPAM
          spam_rules = [
                "free" in x,
      #
                "subs" in x,
      #
                "gift" in x,
      #
                "follow" in x,
      #
                "http" in x,
      #
                "check out" in x
          ]
          # Classify depending on your rules
          if any(not_spam_rules):
              return 0
          if any(spam_rules):
              return 1
          return -1
      try:
          label_given_rules(X_train, your_labeling_rules, "your-iteration")
          plot_accuracies()
      except ValueError:
          print("You have not defined any rules.")
```

You have not defined any rules.

Congratulations on finishing this ungraded lab!

By now you should have a better understanding of having good labelled data. In general, the

better your labels are, the better your models will be. Also it is important to realize that the process of correctly labeling data is a very complex one. Remember, you can think of each one of the iterations of the automatic labeling process to be a different labeler with different criteria for labeling. If you assume you are hiring labelers you will want to hire the latter for sure!

Another important point to keep in mind is that establishing baselines to compare against is really important as they provide perspective on how well your data and models are performing.

Keep it up!