CLASSIFYING MENTAL CONDITION OF USERS WITH MULTIPLE INSTANCE LEARNING FROM SOCIAL NETWORK DATA

A Industry Oriented Mini Project report submitted
in partial fulfillment of requirements
for the award of degree of

Bachelor of Technology
In
Information Technology

By

MOHAMMAD ABDUL JABBAR **(Reg No: 16131A1268)**
MANISHA JAMI **(Reg No: 16131A1265)**
VEGESANA SANJUNA **(Reg No: 16131A12A9)**
MAHESWARI PERICHARLA **(Reg No: 16131A1286)**

Under the esteemed guidance of

Mr.R.V.V. MURALI KRISHNA

B.Tech.,M.Tech.(AU) , Associate Professor.

Department of Information Technology
GAYATRI VIDYA PARISHAD COLLEGE OF ENGINEERING (AUTONOMOUS)
(Affiliated to JNTU-K, Kakinada)
VISAKHAPATNAM

2019 - 2020

Gayatri Vidya Parishad College of Engineering (Autonomous) Visakhapatnam

CERTIFICATE

This report on **"*CLASSIFYING MENTAL CONDITION OF USERS WITH MULTIPLE INSTANCE LEARNING FROM SOCIAL NETWORK DATA*"** is a bonafide record
of the mini project work submitted

By

MOHAMMAD ABDUL JABBAR (Reg No: 16131A1268)
MANISHA JAMI (Reg No: 16131A1265)
VEGESANA SANJUNA (Reg No: 16131A12A9)
MAHESWARI PERICHARLA (Reg No: 16131A1286)

in their VII semester in partial fulfillment of the requirements for the Award of Degree of

Bachelor of Technology

In

Information Technology

During the academic year 2019-2020

Mr.R.V.V.Murali Krishna
Project guide

Dr.K.B.Madhuri
Head of the Department
Department of information technology

DECLARATION

I/we here by declare that this industry oriented mini project entitled **"CLASSIFYING MENTAL CONDITION OF USERS WITH MULTIPLE INSTANCE LEARNING FROM SOCIAL NETWORK DATA"** is a bonafide work done by me and submitted to **Department of Information Technology G.V.P college of engineering (autonomous) Visakhapatnam,** in partial fulfilment for the award of the degree of B.Tech is of my own and it is not submitted to any other university or has been published any time before.

PLACE: VISAKHAPATNAM

DATE : 16-08-2019

MOHAMMAD ABDUL JABBAR(16131A1268)

MANISHA JAMI(16131A1265)

VEGESANA SANJUNA(16131A12A9)

MAHESWARI PERICHARLA(16131A1286)

ACKNOWLEDEGEMENT

We thank our faculty at the department particularly **Sri R.V.V. Murali Krishna ,IT** for the kind suggestions and guidance through our in house main project work .we also thank him for his guidance as our guide that enable the successful completion of our project work.

we wish to express our deep graduate to the **Sri B. MADHURI, Head of the department of IT ,GVPCOE** for giving us an opportunity to do the project in college .

we wish to express our deep gratitude to the **Principal ,GVPCOE** for giving us opportunity to do the project work, giving us a chance to explore and learn new technologies in the form of mini project

finally we would like to thank all those people who helped us in many ways in completing this project.

MOHAMMAD ABDUL JABBAR (16131A1268)

MANISHA JAMI(16131A1265)

VEGESANA SANJUNA(16131A12A9)

MAHESWARI PERICHARLA(16131A1286)

ABSTRACT

CLASSIFYING MENTAL CONDITION OF USERS WITH MULTIPLE INSTANCE LEARNING FROM SOCIAL NETWORK DATA is a Machine Learning system.

Over 320 million are suffering from depression worldwide.Depression is one of the common mental health disorders. By its nature depression can reoccur. People suffering from depression tends to lose interests, have low mood, feel hopeless or have social isolation.So far, there are few number of studies investigating deep learning techniques to classify social network users with depression.

Most of the studies used classical machine learning techniques eg., regression, support vector machine, decision trees.This project aims to develop a machine learning predictive model to classify users with depression using neural networks. Social network posts were obtained from Twitter. The model is trained on the emotion of the tweet in the social media and predict accordingly. It is a sentimental analysis model done for determining the emotions of users so that the adiministrators may come to know the state of users in his network. The predictive model for the classification was obtained from machine learning techniques.

INDEX

INTRODUCTION

Social media is filled with variety of posts with different emotions. This mini project deals with creating a machine learning algorithm which classifies users on their sentiments based on their tweets in social media. This is created on Pycharm IDE

1.1 OBJECTIVE

"Classifying Mental Condition of Users with Multiple Instance Learning from Social Network Data" is an algorithm developed for classifying the mental condition of users which helps administrator to identify which state the users are in based on their tweets.

1.2 ABOUT THE ALGORITHM

The algorithm is developed on Pycharm IDE. It is developed using python neural network programming which is an extension of the python language for machine learning algorithm development. It is developed for classifying any type of text data ,In this context it is applied to tweets of users.

1.3 PURPOSE

The purpose of developing the algorithm is to create a state of art algorithm which can be used to determine the mental condition of users and allow them to take necessary actions if it is in a bad manner.

1.4 SCOPE

The scope of the algorithm is not restricted to the system on which it is developed. It can be served as an API to simply pass the text and get the classified output.It can be used for classifying any type of text and can be extended to other social media platforms as well.

SOFTWARE REQUIRMENTS SPECIFICATION

2.1 FUNCTIONAL REQUIRMENTS

A functional requirements defines a function of a system or it component .A function described as a set of inputs, the behavior, and outputs**.**

2.1.1 SOFTWARE REQUIREMENTS

- Operating system: Windows,Mac,Linux
- Programming language: Python
- Pycharm IDE(Integrated Development Environment)
- Python 3.6
- Packages : numpy 1.16.2

  pandas 0.21.0

  nltk 3.4.4

  keras 2.1.2

  sklearn 0.0

  gensim 1.0.0

2.1.1 HARDWARE REQIUREMENTS

- Processor: Intel/ARM processor
- RAM:8GB
- Disk space: 1 TB

2.2 NON FUNCTIONAL REQUIREMENTS

A non- functional requirement is a requirement that specify criteria that can be used to judge the operation of a system, rather than specific behaviors .Nonfunctional requirements are called qualities of a system, there are as follows:

1. Performance

- Response time

  How long the algorithm takes to classify ?

- Processing time

  How long the algorithm takes to train on data ?

- Query and reporting times

  (Considerable when providing an API)

2. Capacity and scalability

- Throughput

  How many tasks our system needs to handle ? (Considerable when providing an API).

- Storage

  How much data are we going to need to achieve what we need?

- Coding standard

  Did we decide on the coding standards for the algorithm and stick to them?

ALGORITHM ANALYSIS

3.1 EXISTING ALGORITHM

For classifying there are several existing algorithms like RNN(Recurrent Neural Network) ,Decision Trees,SVM(Support Vector Machines) etc. But they lack the accuracy and performance to be completely reliable.

DRAWBACKS OF EXISTING SYSTEMS:

- Low Accuracy.
- Low Reliablity.
- Less Robust.
- Less Adaptability.
- Low Performance.

3.2 PROPOSED SYSTEM

To overcome the drawbacks of the existing system, the proposed system has been evolved. Our system primarily focuses on classifying users based on their tweets on social media and determining the mental condition of users. The algorithm can be used as a plug-in on twitter platform to directly classify the tweets instead of doing all the ground work like manual search etc. It provides administrator to know the users mental condition and take necessary actions accordingly.

ADVANTAGES OF PROPOSED SYSTEM:

- High accuracy compared to existing algorithms.
- It is highly reliable.
- Works on huge amount of data.
- Not restricted to a single scan knowledge extraction

3.3 FEASIBILITY STUDY:

Feasibility analysis begins once the goals are defined. It starts by generating broad possible solutions, which are possible to give an indication of what the new system should look like. This is where creativity and imagination are used. Analysts must think up new ways of doing things- generate new ideas. There is no need to go into the detailed system operation yet. The solution should provide enough information to make reasonable estimates about project cost and give users an indication of how the new system will fit into the organization. It is important not to exert considerable effort at this stage only to find out that the project is not worthwhile or that there is a need significantly change the original goal. Feasibility of a new system means ensuring that the new system, which we are going to implement, is efficient and affordable. There are various types of feasibility to be determined. They are,

3.3.1 Economically Feasibility:

Development of this application is highly economically feasible. The only thing to be done is making an environment with an effective supervision. It is cost effective in the sense that has eliminated the

paper work completely. The system is also time effective because the calculations are automated which are made as per the user requirement. The result obtained contains minimum errors and are highly accurate.

3.3.2 Technical feasibility:

The technical requirement for the system is economic and it does not use any other additional Hardware and software.

3.3.3 Operational Feasibility:

The system working is quite easy to use and learn due to its simple but attractive interface. User requires no special training for operating the system. Technical performance include issues such as determining whether the system can provide the right information for the Department personnel student details, and whether the system can be organized so that it always delivers this information at the right place and on time. Acceptance revolves around the current system and its personnel.

3.4 Cost benefit analysis

The financial and the economic questions during the preliminary investigation are verified to estimate the following:

- The cost of the hardware and software for the class of application being considered.
- The benefits in the form of reduced cost.
- The proposed system will give the minute information, as a result.
- Performance is improved which in turn may be expected to provide increased profits.
- This feasibility checks whether the system can be developed with the available funds.
- This can be done economically if planned judicially, so it is economically feasible.
- The cost of project depends upon the number of man-hours required.

SOFTWARE DESCRIPTION

4.1 PYCHARM IDE

PyCharm is an integrated development environment (IDE) used in computer programming, specifically for the Python language. It is developed by the Czech company JetBrains. It provides code analysis, a graphical debugger, an integrated unit tester, integration with version control systems (VCSes), and supports web development with Django as well as Data Science with Anaconda. It is a cross-platform, with Windows, macOS and Linux.

- Coding assistance and analysis, with code completion, syntax and error highlighting, linter integration, and quick fixes
- Project and code navigation: specialized project views, file structure views and quick jumping between files, classes, methods and usages
- Python refactoring: includes rename, extract method, introduce variable, introduce constant, pull up, push down and others
- Support for web frameworks: Django, web2py and Flask
- Integrated Python debugger
- Integrated unit testing, with line-by-line code coverage
- Google App Engine Python development
- It competes mainly with a number of other Python-oriented IDEs, including Eclipse's PyDev, and the more broadly focused Komodo IDE.

PyCharm provides API so that developers can write their own plugins to extend PyCharm features. Several plugins from other JetBrains IDE also work with PyCharm. There are more than 1000 plugins which are compatible with PyCharm.

4.2 KERAS:

Keras is an open-source neural-network library written in Python. It is capable of running on top of TensorFlow, Microsoft Cognitive Toolkit, Theano, or PlaidML. Designed to enable fast experimentation with deep neural networks, it focuses on being user-friendly, modular, and extensible. It was developed as part of the research effort of project ONEIROS (Open-ended Neuro-Electronic Intelligent Robot Operating System), and its primary author and maintainer is François

Chollet, a Google engineer. Chollet also is the author of the XCeption deep neural network model. In 2017, Google's TensorFlow team decided to support Keras in TensorFlow's core library. Chollet explained that Keras was conceived to be an interface rather than a standalone machine learning framework. It offers a higher-level, more intuitive set of abstractions that make it easy to develop deep learning models regardless of the computational backend used.

4.3 PANDAS :

pandas is a software library written for the Python programming language for data manipulation and analysis. In particular, it offers data structures and operations for manipulating numerical tables and time series. It is free software released under the three-clause BSD license. The name is derived from the term "panel data", an econometrics term for data sets that include observations over multiple time periods for the same individuals

4.4 SKLEARN :

Scikit-learn (formerly **scikits.learn**) is a free software machine learning library for the Python programming language.

It featuresvarious classification, regression and clustering algorithms including support vector machines, random forests, gradient boosting, *k*-means and DBSCAN, and is designed to interoperate with the Python numerical and scientific libraries NumPy and SciPy.

4.5 GENISM :

Gensim is a free Python library designed to automatically extract semantic topics from documents, as efficiently (computer-wise) and painlessly (human-wise) as possible.

Gensim is designed to process raw, unstructured digital texts ("*plain text*"). The algorithms in Gensim, such as Word2Vec,FastText, Latent Semantic Analysis (LSI, LSA, see LSIModel), Latent Dirichlet Allocation (LDA, see LdaModel) etc, automatically discover the semantic structure of documents by examining statistical co-occurrence patterns within a corpus of training documents. These algorithms are **unsupervised**, which means no human input is necessary – you only need a corpus of plain text documents. Once these statistical patterns are found, any plain text documents

(sentence, phrase, word…) can be succinctly expressed in the new, semantic representation and queried for topical similarity against other documents (words, phrases…).

Memory independence and memory sharing are features of genism.

4.5 NLTK :

NLTK stands for Natural Language Toolkit. This toolkit is one of the most powerful NLP libraries which contains packages to make machines understand human language and reply to it with an appropriate response. Tokenization, Stemming, Lemmatization, Punctuation, Character count, word count are some of these packages.

Tokenization

Tokenization is the first step in text analytics. The process of breaking down a text paragraph into smaller chunks such as words or sentence is called Tokenization. Token is a single entity that is building blocks for sentence or paragraph.

Sentence Tokenization

Sentence tokenizer breaks text paragraph into sentences.

Word Tokenization

Word tokenizer breaks text paragraph into words.

Stopwords

Stopwords considered as noise in the text. Text may contain stop words such as is, am, are, this, a, an, the, etc.In NLTK for removing stopwords, you need to create a list of stopwords and filter out your list of tokens from these words.

PROJECT DESCRIPTION

5.1 PROBLEM DEFINITION

This algorithm developed will help in classifying users based on their tweets and to assess their mental condition based on the tweets. The objective is to pass a tweet to the algorithm and identify the mental condition of our user and classify it thereby serving our purpose.

5.2 PROJECT OVERVIEW

Neural networks are a set of algorithms, modeled loosely after the human brain, that are designed to recognize patterns.

Neural networks help us cluster and classify. You can think of them as a clustering and classification layer on top of the data you store and manage.

- Deep learning is a class of machine learning algorithms that use multiple layers to progressively extract higher level features from raw input.
- As we are using a single layer , the following algorithm is a machine learning one.

5.3 MECHANISM DESCRIPTION

5.3.1 MACHINE LEARNING

Machine learning is an application of Artificial intelligence (AI) that provides a systems the ability to automatically learn and improve from the experience without being explicitly programmed.Machine learning mainly focus on the development of an computer logical programs that can access any data and use it learn for themselves.

- **Supervised machine learning algorithms** can apply what has been learned in the past to new data using labeled examples to predict future events. Starting from the analysis of a known training dataset, the learning algorithm produces an inferred function to make

predictions about the output values. The system is able to provide targets for any new input after sufficient training. The learning algorithm can also compare its output with the correct, intended output and find errors in order to modify the model accordingly.

- In contrast, **unsupervised machine learning algorithms** are used when the information used to train is neither classified nor labeled. Unsupervised learning studies how systems can infer a function to describe a hidden structure from unlabeled data. The system doesn't figure out the right output, but it explores the data and can draw inferences from datasets to describe hidden structures from unlabeled data.
- **Semi-supervised machine learning algorithms** fall somewhere in between supervised and unsupervised learning, since they use both labeled and unlabeled data for training – typically a small amount of labeled data and a large amount of unlabeled data. The systems that use this method are able to considerably improve learning accuracy. Usually, semi-supervised learning is chosen when the acquired labeled data requires skilled and relevant resources in order to train it learn from it. Otherwise, acquiringunlabeled data generally doesn't require additional resources.
- **Reinforcement machine learning algorithms** is a learning method that interacts with its environment by producing actions and discovers errors or rewards. Trial and error search and delayed reward are the most relevant characteristics of reinforcement learning. This method allows machines and software agents to automatically determine the ideal behavior within a specific context in order to maximize its performance. Simple reward feedback is required for the agent to learn which action is best; this is known as the reinforcement signal.

Machine learning enables analysis of massive quantities of data. While it generally delivers faster, more accurate results in order to identify profitable opportunities or dangerous risks, it may also require additional time and resources to train it properly. Combining machine learning with AI and cognitive technologies can make it even more effective in processing large volumes of information.

5.3.2 CONVOLUTIONAL NEURAL NETWORKS

Convolutional Neural Network has had ground breaking results over the past decade in a variety of fields related to pattern recognition; from image processing to voice recognition. The most beneficial aspect of CNNs is reducing the number of parameters in ANN . This achievement has prompted both researchers and developers to approach larger models in order to solve complex tasks, which was not possible with classic ANNs; . The most important assumption about problems that are solved by CNN should not have features which are spatially dependent. In other words, for example, in a face detection application, we do not need to pay attention to where the faces are located in the images. The only concern is to detect them regardless of their position in the given images . Another important aspect of CNN, is to obtain abstract features when input propagates toward the deeper layers. For example, in image classification, the edge might be detected in the first layers, and then the simpler shapes in the second layers, and then the higher level features such as faces in the next layers as shown in Fig. 1, as in [1,3,5,15]. To obtain a good grasp of CNN, we start with its basic elements.

A. Convolution

Let’s assume that the input of our neural network has the presented shape in Fig. 2, It can be an image (e.g. color image of a CIFAR-10 dataset with a width and height of 32×32 pixels, and a depth of 3 which RGB channel) or a video (gray scale video whose height and width are the resolution, and the depth are the frames) or even an experimental video, which has width and height of (L × L) sensor values, and the depths are associated with different time frames, as in [2,10,15]. Why convolution ? . Let's assume that the network receives raw pixels as input. Therefore, to connect the input layer to only one neuron (e.g. in the hidden layer in the Multi- Layer perceptron), as an example, there should be 32×32×3 weight connections for the CIFAR-10 dataset.

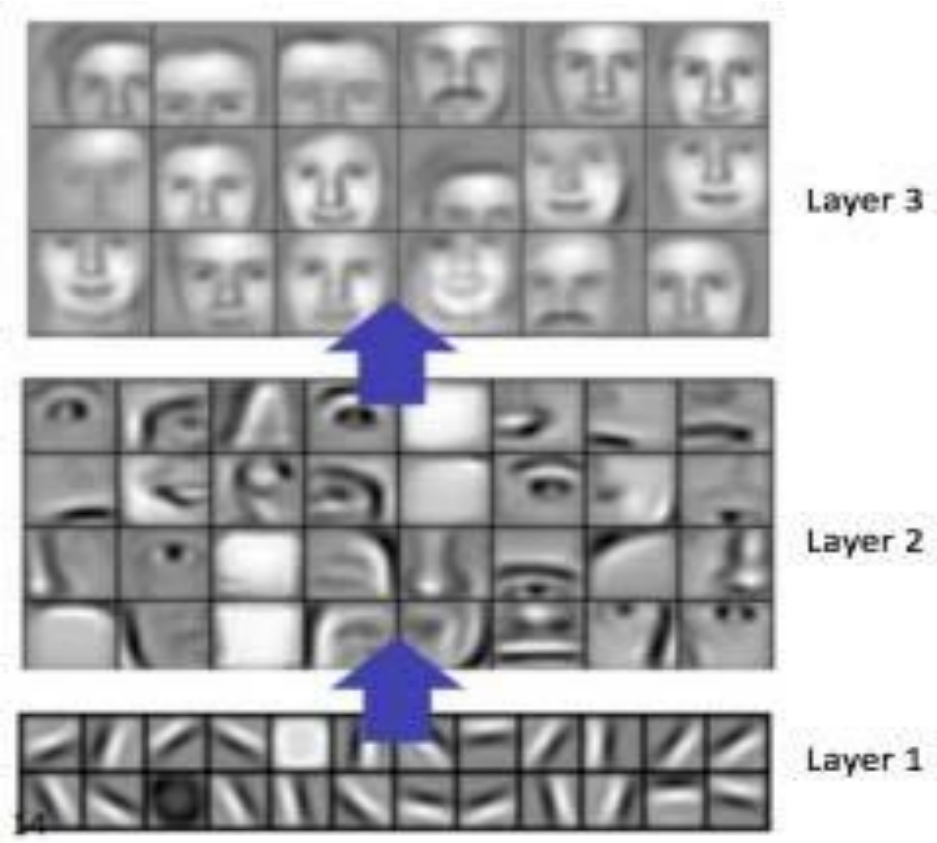


Fig 1.

If we add one more neuron into the hidden layer, then we will need another 32×32×3 weight connection, which will become in total, 32×32×3×2 parameters. To make it clearer, more than 6000 weight parameters are used to connect the input to just only two nodes. It may be thought that two neurons might not be enough for any useful processing for an image classification application. To make it more efficient, we can connect the input image to the neurons in the next layer with exactly the same values for the height and width. It can be assumed this network is applied for the type of processing such as the edge in the image. However, the mentioned network needs 32×32×3 by 32×32 weight connections, which are (3,145,728), as in [4,5,14]. Therefore, looking for a more efficient method, it emerged that instead of a full connection, it is a good idea to look for local regions in the picture instead of in the whole image. Fig. 3, shows a regional connection for the next layer. In other words, the hidden neurons in the next layer only get inputs from the corresponding part of the previous layer. For example, it can only be connected to 5×5 neurons. Thus, if we want to have 32×32 neurons in the next layer, then we will have 5×5×3 by 32x32 connections which is 76,800 connections (compared to 3,145,728 for full connectivity), as in [1,9,13,14,17]. Although the size of

connection drastically dropped, it still leaves so many parameters to solve. Another assumption for simplification, is to keep the local connection weights fixed for the entire neurons of the next layer. This will connect the neighbor neurons in the next layer with exactly the same weight to the local region of the previous layer. Therefore, it again drops many extra parameters, and reduces the number of weights to only 5×5×3=75 to connect 32×32×3 neurons to 32×32 in the next layer [5,8,11]. There are many benefits to these simple assumptions. Firstly, the number of connections decrease from around 3 million to only 75 connections in the presented example. Secondly, and a more interesting concept, is that fixing the weights for the local connections is similar to sliding a window of 5×5×3 in the input neurons and mapping the generated output to the corresponding place. It provides an opportunity to detect and recognize features regardless of their positions in the image. This is the reason why they are called convolutions [6,7,16].

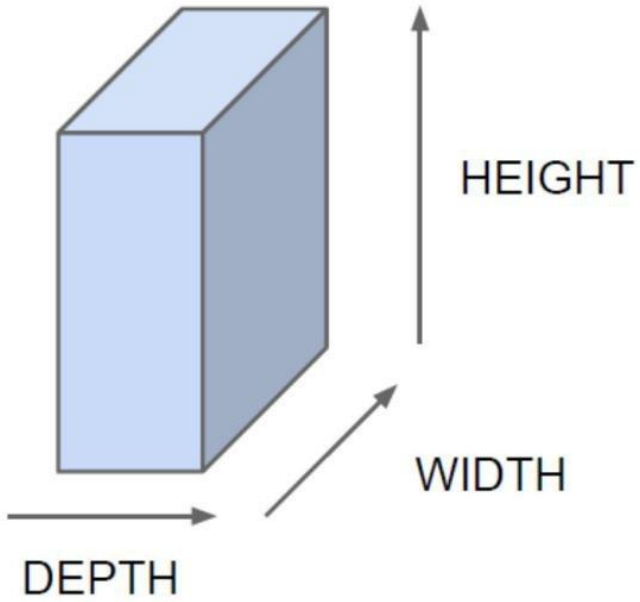


Fig 2.

To show the astounding effect of the convolution matrix, Fig.3, depicts what will happen if we manually pick the connection weight in a 3×3 window. As we can see Fig.3, the matrix can be set to detect edges in the image. These matrices are also called a filter because they act like the classic filters in the image processing. However, in the convolutional neural network these filters are initialized, followed by the training procedure shape filters, which are more suitable for the given task. To make this method more beneficial, it is possible to add more layers after the input layer.

Each layer can be associated with different filters. Therefore, we can extract different features from the given image. Fig. 5, shows how they are connected to the different layers. Each layer has its own filter and therefore extracts different features from the input. The neurons shown in Fig. 3, use a different filter, but look at the same part of the input image. [6,8,15,17].

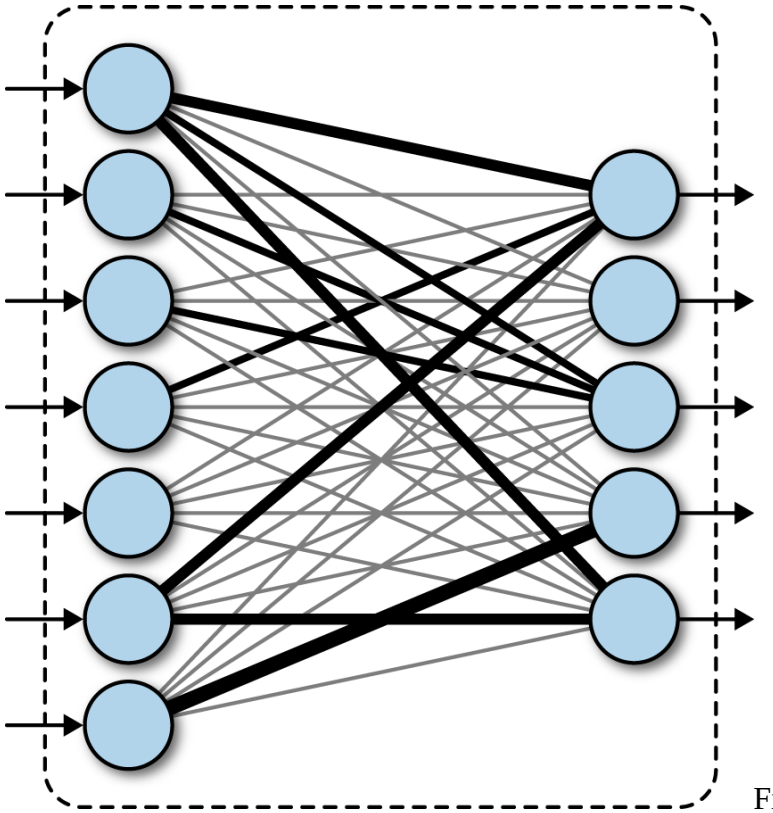


Fig 3.

B. Stride

In fact, CNN has more options which provide a lot of opportunities to even decrease the parameters more and more, and at the same time reduce some of the side effects. One of these options is stride. In the above mentioned example, it is simply assumed that the next layer's node has lots of overlaps with their neighbors by looking at the regions. We can manipulate the overlap by controlling the stride. Fig. 5, shows a given 7×7 image. If we move the filter one node every time, we can have a 5x5 output only.

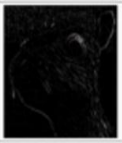
Operation	Filter	Convolved Image
Identity	$\begin{bmatrix} 0 & 0 & 0 \\ 0 & 1 & 0 \\ 0 & 0 & 0 \end{bmatrix}$	
Edge detection	$\begin{bmatrix} 1 & 0 & -1 \\ 0 & 0 & 0 \\ -1 & 0 & 1 \end{bmatrix}$	
	$\begin{bmatrix} 0 & 1 & 0 \\ 1 & -4 & 1 \\ 0 & 1 & 0 \end{bmatrix}$	
	$\begin{bmatrix} -1 & -1 & -1 \\ -1 & 8 & -1 \\ -1 & -1 & -1 \end{bmatrix}$	
Sharpen	$\begin{bmatrix} 0 & -1 & 0 \\ -1 & 5 & -1 \\ 0 & -1 & 0 \end{bmatrix}$	
Box blur (normalized)	$\frac{1}{9}\begin{bmatrix} 1 & 1 & 1 \\ 1 & 1 & 1 \\ 1 & 1 & 1 \end{bmatrix}$	
Gaussian blur (approximation)	$\frac{1}{16}\begin{bmatrix} 1 & 2 & 1 \\ 2 & 4 & 2 \\ 1 & 2 & 1 \end{bmatrix}$	

Fig 4.

Note that the output of the three left matrices in Fig. 6, have an overlap (and three middle ones together and three right ones also). However, if we move and make every stride 2, then the output will be 3x3. Put simply, not only overlap, but also the size of the output will be reduced. [5,12,16]. Equation , formalize this, given the image N×N dimension and the filter size of the F×F, the output size O as shown in Fig. 5. Where N is the input size, F is the filter size, and S is the stride size.

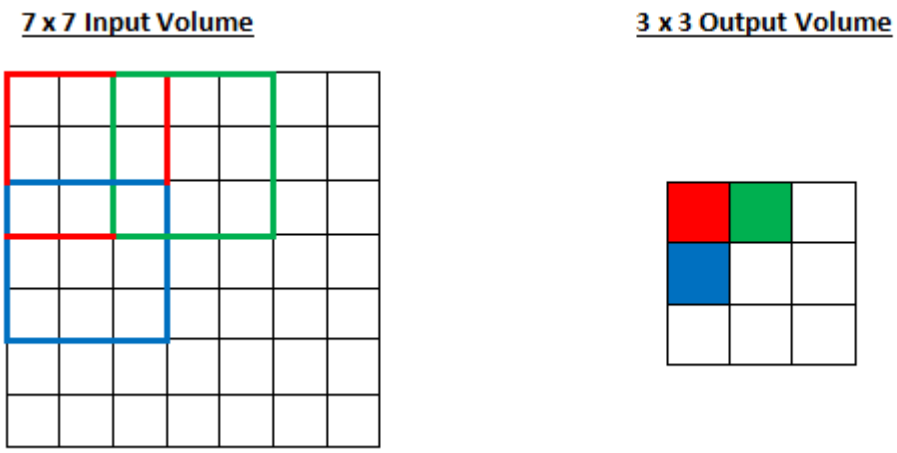


Fig 5.

C. Feature of CNNs

The weight sharing brings invariance translations to the model. It helps to filter the learn feature regardless of the spatial properties. By starting random values for the filters, they will learn to detect the edge (such as in Fig. 4) if it improves the performance. It is important to remember that if we need to know that something is spatially important in the given input, then it is an extremely bad idea to use a shared weight.

This concept can be extended to different dimensions also. For example, if it is sequential data such as an audio, then it can employ a one dimensional audio. If it is an image, as it is shown, two dimensional convolutions can be applied. And for videos, or 3D images, a three dimensional convolution can be used. This simple idea beat all the classic object recognition methods in computer vision in the 2012 ImageNet challenge as shown in Fig. 6, [5,14,18] E. Convolutional Formula The convolution for one pixel in the next layer is calculated according to the formula . Where is the output in the next layer, is the input image and is the kernel or filter matrix and is the convolution operation. Fig. 6, shows how the convolution works. As can be seen, the element by element product of the input and kernel is aggregated, and then represents the corresponding point in the next layer. [4,9].

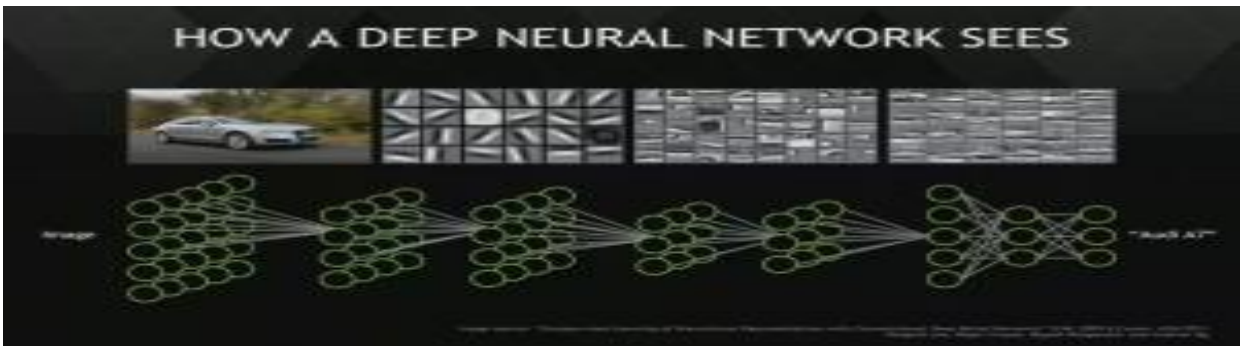


Fig 6.

D. Convolutional Formula

The convolution for one pixel in the next layer is calculated according to the formula . Where is the output in the next layer, is the input image and is the kernel or filter matrix and is the convolution operation. Fig. 6, shows how the convolution works. As can be seen, the element by element product

of the input and kernel is aggregated, and then represents the corresponding point in the next layer. [4,9].

E. RELU

ReLU has simpler definitions in both function and gradient. The saturated function such as sigmoid and tanh cause problems in the back propagation. As the neural network design is deeper, the gradient signal begins to vanish, which is called the “vanishing gradient”. This happens since the gradient of those functions is very close to zero almost everywhere but the center. However, the ReLU has a constant gradient for the positive input. Although the function is not differentiable, it can be ignored in the actual implementation. The ReLU creates a sparser representation. because the zero in the gradient leads to obtaining a complete zero. However, sigmoid and tanh always have non-zero results from the gradient, which might not be in favor for training. [2,5,13].

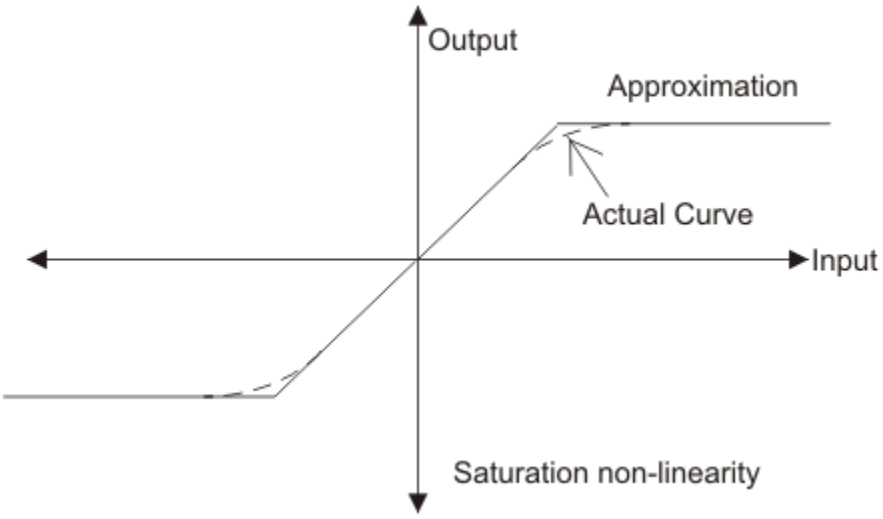


Fig 7.

DEVELOPMENT

6.1 Dataset Used

target	ids	Date	Flag	user	text

The tweets have been annotated (0 = negative, 2 = neutral, 4 = positive) and they can be used to detect sentiment . It contains the following 6 fields:

- target: the polarity of the tweet (*0* = negative, *2* = neutral, *4* = positive)
- ids: The id of the tweet (*2087*)
- date: the date of the tweet (*Sat May 16 23:58:44 UTC 2009*)
- flag: The query (*lyx*). If there is no query, then this value is NO_QUERY.
- user: the user that tweeted (*sam*)
- text: the text of the tweet (*Lyx is cool*)

6.2 Code

```
import pandas as pd

# Matplot

import matplotlib.pyplot as plt

%matplotlib inline

# Scikit-learn

from sklearn.model_selection import train_test_split

from sklearn.preprocessing import LabelEncoder

from sklearn.metrics import confusion_matrix, classification_report, accuracy_score

from sklearn.manifold import TSNE

from sklearn.feature_extraction.text import TfidfVectorizer


# Keras

from keras.preprocessing.text import Tokenizer

from keras.preprocessing.sequence import pad_sequences

from keras.models import Sequential

from keras.layers import Activation, Dense, Dropout, Embedding, Flatten, Conv1D,
MaxPooling1D, LSTM

from keras import utils

from keras.callbacks import ReduceLROnPlateau, EarlyStopping


# nltk

import nltk

from nltk.corpus import stopwords
```

```
from  nltk.stem import SnowballStemmer

# Word2vec
import gensim
# Utility
import re
import numpy as np
import os
from collections import Counter
import logging
import time
import pickle
import itertools

#Downloading stopwords for data preprocessing
nltk.download('stopwords')

# DATASET
DATASET_COLUMNS = ["target", "ids", "date", "flag", "user", "text"]
DATASET_ENCODING = "ISO-8859-1"
TRAIN_SIZE = 0.8

# TEXT CLENAING
TEXT_CLEANING_RE = "@\S+|https?:\S+|http?:\S|[^A-Za-z0-9]+"
```

```
# WORD2VEC

W2V_SIZE = 300

W2V_WINDOW = 7

W2V_EPOCH = 32

W2V_MIN_COUNT = 10

# KERAS

SEQUENCE_LENGTH = 300

EPOCHS = 8

BATCH_SIZE = 1024

# SENTIMENT

POSITIVE = "POSITIVE"

NEGATIVE = "NEGATIVE"

NEUTRAL = "NEUTRAL"

SENTIMENT_THRESHOLDS = (0.4, 0.7)

# EXPORT

KERAS_MODEL = "model.h5"

WORD2VEC_MODEL = "model.w2v"

TOKENIZER_MODEL = "tokenizer.pkl"

ENCODER_MODEL = "encoder.pkl"

dataset_filename = os.listdir("../input")[0]

dataset_path = os.path.join("..","input",dataset_filename)
```

```
print("Open file:", dataset_path)

df = pd.read_csv(dataset_path, encoding =DATASET_ENCODING ,
names=DATASET_COLUMNS)

print("Dataset size:", len(df))

df.head(5)


decode_map = {0: "NEGATIVE", 2: "NEUTRAL", 4: "POSITIVE"}

def decode_sentiment(label):

    return decode_map[int(label)]



target_cnt = Counter(df.target)


plt.figure(figsize=(16,8))

plt.bar(target_cnt.keys(), target_cnt.values())

plt.title("Dataset labels distribuition")


#Pre Process Dataset


stop_words = stopwords.words("english")

stemmer = SnowballStemmer("english")


def preprocess(text, stem=False):

    # Remove link,user and special characters

    text = re.sub(TEXT_CLEANING_RE, ' ', str(text).lower()).strip()

    tokens = []

    for token in text.split():
```

```
        if token not in stop_words:
            if stem:
                tokens.append(stemmer.stem(token))
            else:
                tokens.append(token)
    return " ".join(tokens)

#Split train and test

df_train, df_test = train_test_split(df, test_size=1-TRAIN_SIZE, random_state=42)
print("TRAIN size:", len(df_train))
print("TEST size:", len(df_test))

w2v_model = gensim.models.word2vec.Word2Vec(size=W2V_SIZE,
                                            window=W2V_WINDOW,
                                            min_count=W2V_MIN_COUNT,
                                            workers=8)

w2v_model.build_vocab(documents)

words = w2v_model.wv.vocab.keys()
vocab_size = len(words)
print("Vocab size", vocab_size)

%time
w2v_model.train(documents, total_examples=len(documents),
epochs=W2V_EPOCH)
```

```
w2v_model.most_similar("love")


%%time

tokenizer = Tokenizer()

tokenizer.fit_on_texts(df_train.text)


vocab_size = len(tokenizer.word_index) + 1

print("Total words", vocab_size)


%%time

x_train = pad_sequences(tokenizer.texts_to_sequences(df_train.text),
maxlen=SEQUENCE_LENGTH)

x_test = pad_sequences(tokenizer.texts_to_sequences(df_test.text),
maxlen=SEQUENCE_LENGTH)

#Label Encoder

labels = df_train.target.unique().tolist()

labels.append(NEUTRAL)

labels

encoder = LabelEncoder()

encoder.fit(df_train.target.tolist())

y_train = encoder.transform(df_train.target.tolist())

y_test = encoder.transform(df_test.target.tolist())

y_train = y_train.reshape(-1,1)

y_test = y_test.reshape(-1,1)

print("y_train",y_train.shape)
```

```
print("y_test",y_test.shape)

print("x_train", x_train.shape)

print("y_train", y_train.shape)

print()

print("x_test", x_test.shape)

print("y_test", y_test.shape)

y_train[:10]

#Embedding Layer

embedding_matrix = np.zeros((vocab_size, W2V_SIZE))

for word, i in tokenizer.word_index.items():

  if word in w2v_model.wv:

    embedding_matrix[i] = w2v_model.wv[word]

print(embedding_matrix.shape)


embedding_layer = Embedding(vocab_size, W2V_SIZE,
weights=[embedding_matrix], input_length=SEQUENCE_LENGTH, trainable=False)

model = Sequential()

model.add(embedding_layer)

model.add(Dropout(0.5))

model.add(LSTM(100, dropout=0.2, recurrent_dropout=0.2))

model.add(Dense(1, activation='sigmoid'))

model.summary()

model.compile(loss='binary_crossentropy',
              optimizer="adam",
              metrics=['accuracy'])
```

```
#Train

%%time
history = model.fit(x_train, y_train,
                    batch_size=BATCH_SIZE,
                    epochs=EPOCHS,
                    validation_split=0.1,
                    verbose=1,
                    callbacks=callbacks)

#Evaluate

%%time
score = model.evaluate(x_test, y_test, batch_size=BATCH_SIZE)

print()

print("ACCURACY:",score[1])

print("LOSS:",score[0])

acc = history.history['acc']

val_acc = history.history['val_acc']

loss = history.history['loss']

val_loss = history.history['val_loss']

epochs = range(len(acc))

plt.plot(epochs, acc, 'b', label='Training acc')

plt.plot(epochs, val_acc, 'r', label='Validation acc')

plt.title('Training and validation accuracy')

plt.legend()

plt.figure()

plt.plot(epochs, loss, 'b', label='Training loss')

plt.plot(epochs, val_loss, 'r', label='Validation loss')
```

```
plt.title('Training and validation loss')

plt.legend()

plt.show()

#Predict

def decode_sentiment(score, include_neutral=True):

    if include_neutral:

        label = NEUTRAL

        if score <= SENTIMENT_THRESHOLDS[0]:

            label = NEGATIVE

        elif score >= SENTIMENT_THRESHOLDS[1]:

            label = POSITIVE

        return label

    else:

        return NEGATIVE if score < 0.5 else POSITIVE

def predict(text, include_neutral=True):

    start_at = time.time()

    # Tokenize text

    x_test = pad_sequences(tokenizer.texts_to_sequences([text]),
maxlen=SEQUENCE_LENGTH)

    # Predict

    score = model.predict([x_test])[0]

    # Decode sentiment

    label = decode_sentiment(score, include_neutral=include_neutral)
```

```
    return {"label": label, "score": float(score),
       "elapsed_time": time.time()-start_at}

predict("I love the music")

predict("I hate the rain")

predict("i don't know what i'm doing")

%%time

y_pred_1d = []

y_test_1d = list(df_test.target)

scores = model.predict(x_test, verbose=1, batch_size=8000)

y_pred_1d = [decode_sentiment(score, include_neutral=False) for score in scores]


def plot_confusion_matrix(cm, classes,
                          title='Confusion matrix',
                          cmap=plt.cm.Blues):

    cm = cm.astype('float') / cm.sum(axis=1)[:, np.newaxis]

    plt.imshow(cm, interpolation='nearest', cmap=cmap)

    plt.title(title, fontsize=30)

    plt.colorbar()

    tick_marks = np.arange(len(classes))

    plt.xticks(tick_marks, classes, rotation=90, fontsize=22)

    plt.yticks(tick_marks, classes, fontsize=22)

    fmt = '.2f'

    thresh = cm.max() / 2.
```

```
    for i, j in itertools.product(range(cm.shape[0]), range(cm.shape[1])):
        plt.text(j, i, format(cm[i, j], fmt),
                 horizontalalignment="center",
                 color="white" if cm[i, j] > thresh else "black")
    plt.ylabel('True label', fontsize=25)
    plt.xlabel('Predicted label', fontsize=25)
%%time
cnf_matrix = confusion_matrix(y_test_1d, y_pred_1d)
plt.figure(figsize=(12,12))
plot_confusion_matrix(cnf_matrix, classes=df_train.target.unique(), title="Confusion matrix")
plt.show()
#Classification Report
print(classification_report(y_test_1d, y_pred_1d))
#Accuracy Score
accuracy_score(y_test_1d, y_pred_1d)
#Save model
model.save(KERAS_MODEL)
w2v_model.save(WORD2VEC_MODEL)
pickle.dump(tokenizer, open(TOKENIZER_MODEL, "wb"), protocol=0)
pickle.dump(encoder, open(ENCODER_MODEL, "wb"), protocol=0)
```

6.3 TRAIN OUTPUT

2019-01-02 14:42:36,211 : INFO : collecting all words and their counts

2019-01-02 14:42:36,213 : INFO : PROGRESS: at sentence #0, processed 0 words, keeping 0 word types

2019-01-02 14:42:36,241 : INFO : PROGRESS: at sentence #10000, processed 72565 words, keeping 14005 word types

2019-01-02 14:42:36,269 : INFO : PROGRESS: at sentence #20000, processed 144393 words, keeping 21587 word types

2019-01-02 14:42:36,299 : INFO : PROGRESS: at sentence #30000, processed 215826 words, keeping 27541 word types

2019-01-02 14:42:36,337 : INFO : PROGRESS: at sentence #40000, processed 288271 words, keeping 32764 word types

2019-01-02 14:42:36,369 : INFO : PROGRESS: at sentence #50000, processed 359772 words, keeping 37587 word types

2019-01-02 14:42:36,401 : INFO : PROGRESS: at sentence #60000, processed 431431 words, keeping 42198 word types

2019-01-02 14:42:36,434 : INFO : PROGRESS: at sentence #70000, processed 503103 words, keeping 46458 word types

2019-01-02 14:42:36,469 : INFO : PROGRESS: at sentence #80000, processed 575709 words, keeping 50476 word types

2019-01-02 14:42:36,502 : INFO : PROGRESS: at sentence #90000, processed 647100 words, keeping 54140 word types

2019-01-02 14:42:36,535 : INFO : PROGRESS: at sentence #100000, processed 718681 words, keeping 57777 word types

2019-01-02 14:42:36,565 : INFO : PROGRESS: at sentence #110000, processed 790696 words, keeping 61207 word types

2019-01-02 14:42:36,592 : INFO : PROGRESS: at sentence #120000, processed 863134 words, keeping 64583 word types

2019-01-02 14:42:36,619 : INFO : PROGRESS: at sentence #130000, processed 935111 words, keeping 67865 word types

2019-01-02 14:42:36,644 : INFO : PROGRESS: at sentence #140000, processed 1006668 words, keeping 70966 word types

2019-01-02 14:42:36,671 : INFO : PROGRESS: at sentence #150000, processed 1078512 words, keeping 74119 word types

2019-01-02 14:42:36,697 : INFO : PROGRESS: at sentence #160000, processed 1149914 words, keeping 77187 word types

2019-01-02 14:42:36,724 : INFO : PROGRESS: at sentence #170000, processed 1222145 words, keeping 80267 word types

2019-01-02 14:42:36,750 : INFO : PROGRESS: at sentence #180000, processed 1294708 words, keeping 83393 word types

2019-01-02 14:42:36,777 : INFO : PROGRESS: at sentence #190000, processed 1367608 words, keeping 86329 word types

2019-01-02 14:42:36,807 : INFO : PROGRESS: at sentence #200000, processed 1439469 words, keeping 89103 word types

2019-01-02 14:42:36,834 : INFO : PROGRESS: at sentence #210000, processed 1512099 words, keeping 91840 word types

2019-01-02 14:42:36,860 : INFO : PROGRESS: at sentence #220000, processed 1584149 words, keeping 94636 word types

2019-01-02 14:42:36,887 : INFO : PROGRESS: at sentence #230000, processed 1656354 words, keeping 97353 word types

2019-01-02 14:42:36,913 : INFO : PROGRESS: at sentence #240000, processed 1728573 words, keeping 99975 word types

2019-01-02 14:42:36,940 : INFO : PROGRESS: at sentence #250000, processed 1801102 words, keeping 102594 word types

2019-01-02 14:42:36,966 : INFO : PROGRESS: at sentence #260000, processed 1873103 words, keeping 105162 word types

2019-01-02 14:42:36,992 : INFO : PROGRESS: at sentence #270000, processed 1945245 words, keeping 107626 word types

2019-01-02 14:42:37,019 : INFO : PROGRESS: at sentence #280000, processed 2017163 words, keeping 110141 word types

2019-01-02 14:42:37,047 : INFO : PROGRESS: at sentence #290000, processed 2089574 words, keeping 112539 word types

2019-01-02 14:42:37,073 : INFO : PROGRESS: at sentence #300000, processed 2160996 words, keeping 114893 word types

2019-01-02 14:42:37,099 : INFO : PROGRESS: at sentence #310000, processed 2232913 words, keeping 117298 word types

2019-01-02 14:42:37,126 : INFO : PROGRESS: at sentence #320000, processed 2305039 words, keeping 119693 word types

2019-01-02 14:42:37,152 : INFO : PROGRESS: at sentence #330000, processed 2377119 words, keeping 122131 word types

2019-01-02 14:42:37,179 : INFO : PROGRESS: at sentence #340000, processed 2449370 words, keeping 124416 word types

2019-01-02 14:42:37,205 : INFO : PROGRESS: at sentence #350000, processed 2521564 words, keeping 126669 word types

2019-01-02 14:42:37,237 : INFO : PROGRESS: at sentence #360000, processed 2593681 words, keeping 128912 word types

2019-01-02 14:42:37,271 : INFO : PROGRESS: at sentence #370000, processed 2665692 words, keeping 131135 word types

2019-01-02 14:42:37,303 : INFO : PROGRESS: at sentence #380000, processed 2737859 words, keeping 133403 word types

2019-01-02 14:42:37,341 : INFO : PROGRESS: at sentence #390000, processed 2809848 words, keeping 135551 word types

2019-01-02 14:42:37,376 : INFO : PROGRESS: at sentence #400000, processed 2882438 words, keeping 137742 word types

2019-01-02 14:42:37,411 : INFO : PROGRESS: at sentence #410000, processed 2954075 words, keeping 139909 word types

2019-01-02 14:42:37,446 : INFO : PROGRESS: at sentence #420000, processed 3026247 words, keeping 142144 word types

2019-01-02 14:42:37,481 : INFO : PROGRESS: at sentence #430000, processed 3098659 words, keeping 144364 word types

2019-01-02 14:42:37,518 : INFO : PROGRESS: at sentence #440000, processed 3170663 words, keeping 146439 word types

2019-01-02 14:42:37,554 : INFO : PROGRESS: at sentence #450000, processed 3243344 words, keeping 148526 word types

2019-01-02 14:42:37,589 : INFO : PROGRESS: at sentence #460000, processed 3315466 words, keeping 150610 word types

2019-01-02 14:42:37,624 : INFO : PROGRESS: at sentence #470000, processed 3388295 words, keeping 152737 word types

2019-01-02 14:42:37,654 : INFO : PROGRESS: at sentence #480000, processed 3460120 words, keeping 154757 word types

2019-01-02 14:42:37,681 : INFO : PROGRESS: at sentence #490000, processed 3531883 words, keeping 156825 word types

2019-01-02 14:42:37,709 : INFO : PROGRESS: at sentence #500000, processed 3604217 words, keeping 158859 word types

2019-01-02 14:42:37,736 : INFO : PROGRESS: at sentence #510000, processed 3676427 words, keeping 160852 word types

2019-01-02 14:42:37,763 : INFO : PROGRESS: at sentence #520000, processed 3749045 words, keeping 162863 word types

2019-01-02 14:42:37,789 : INFO : PROGRESS: at sentence #530000, processed 3821622 words, keeping 164929 word types

2019-01-02 14:42:37,815 : INFO : PROGRESS: at sentence #540000, processed 3893627 words, keeping 166840 word types

2019-01-02 14:42:37,842 : INFO : PROGRESS: at sentence #550000, processed 3965477 words, keeping 168799 word types

2019-01-02 14:42:37,868 : INFO : PROGRESS: at sentence #560000, processed 4038050 words, keeping 170802 word types

2019-01-02 14:42:37,896 : INFO : PROGRESS: at sentence #570000, processed 4110296 words, keeping 172760 word types

2019-01-02 14:42:37,924 : INFO : PROGRESS: at sentence #580000, processed 4182385 words, keeping 174635 word types

2019-01-02 14:42:37,960 : INFO : PROGRESS: at sentence #590000, processed 4254632 words, keeping 176470 word types

2019-01-02 14:42:37,985 : INFO : PROGRESS: at sentence #600000, processed 4326859 words, keeping 178350 word types

2019-01-02 14:42:38,012 : INFO : PROGRESS: at sentence #610000, processed 4399183 words, keeping 180290 word types

2019-01-02 14:42:38,039 : INFO : PROGRESS: at sentence #620000, processed 4471343 words, keeping 182129 word types

2019-01-02 14:42:38,066 : INFO : PROGRESS: at sentence #630000, processed 4543286 words, keeping 184005 word types

2019-01-02 14:42:38,092 : INFO : PROGRESS: at sentence #640000, processed 4615780 words, keeping 185835 word types

2019-01-02 14:42:38,119 : INFO : PROGRESS: at sentence #650000, processed 4688481 words, keeping 187705 word types

2019-01-02 14:42:38,145 : INFO : PROGRESS: at sentence #660000, processed 4760481 words, keeping 189439 word types

2019-01-02 14:42:38,173 : INFO : PROGRESS: at sentence #670000, processed 4833024 words, keeping 191232 word types

2019-01-02 14:42:38,200 : INFO : PROGRESS: at sentence #680000, processed 4904516 words, keeping 193177 word types

2019-01-02 14:42:38,227 : INFO : PROGRESS: at sentence #690000, processed 4976968 words, keeping 194960 word types

2019-01-02 14:42:38,254 : INFO : PROGRESS: at sentence #700000, processed 5049412 words, keeping 196725 word types

2019-01-02 14:42:38,284 : INFO : PROGRESS: at sentence #710000, processed 5121976 words, keeping 198516 word types

2019-01-02 14:42:38,317 : INFO : PROGRESS: at sentence #720000, processed 5193881 words, keeping 200325 word types

2019-01-02 14:42:38,354 : INFO : PROGRESS: at sentence #730000, processed 5265467 words, keeping 202133 word types

2019-01-02 14:42:38,389 : INFO : PROGRESS: at sentence #740000, processed 5337518 words, keeping 203818 word types

2019-01-02 14:42:38,425 : INFO : PROGRESS: at sentence #750000, processed 5409321 words, keeping 205535 word types

2019-01-02 14:42:38,461 : INFO : PROGRESS: at sentence #760000, processed 5481512 words, keeping 207282 word types

2019-01-02 14:42:38,496 : INFO : PROGRESS: at sentence #770000, processed 5554093 words, keeping 209076 word types

2019-01-02 14:42:38,531 : INFO : PROGRESS: at sentence #780000, processed 5625382 words, keeping 210805 word types

2019-01-02 14:42:38,567 : INFO : PROGRESS: at sentence #790000, processed 5698066 words, keeping 212618 word types

2019-01-02 14:42:38,603 : INFO : PROGRESS: at sentence #800000, processed 5770880 words, keeping 214374 word types

2019-01-02 14:42:38,635 : INFO : PROGRESS: at sentence #810000, processed 5843418 words, keeping 216009 word types

2019-01-02 14:42:38,666 : INFO : PROGRESS: at sentence #820000, processed 5915628 words, keeping 217804 word types

2019-01-02 14:42:38,694 : INFO : PROGRESS: at sentence #830000, processed 5987499 words, keeping 219585 word types

2019-01-02 14:42:38,722 : INFO : PROGRESS: at sentence #840000, processed 6058973 words, keeping 221344 word types

2019-01-02 14:42:38,749 : INFO : PROGRESS: at sentence #850000, processed 6131125 words, keeping 223002 word types

2019-01-02 14:42:38,777 : INFO : PROGRESS: at sentence #860000, processed 6202951 words, keeping 224643 word types

2019-01-02 14:42:38,804 : INFO : PROGRESS: at sentence #870000, processed 6275461 words, keeping 226362 word types

2019-01-02 14:42:38,832 : INFO : PROGRESS: at sentence #880000, processed 6347661 words, keeping 227986 word types

2019-01-02 14:42:38,859 : INFO : PROGRESS: at sentence #890000, processed 6419806 words, keeping 229634 word types

2019-01-02 14:42:38,886 : INFO : PROGRESS: at sentence #900000, processed 6491644 words, keeping 231389 word types

2019-01-02 14:42:38,914 : INFO : PROGRESS: at sentence #910000, processed 6564022 words, keeping 233050 word types

2019-01-02 14:42:38,942 : INFO : PROGRESS: at sentence #920000, processed 6636228 words, keeping 234686 word types

2019-01-02 14:42:38,970 : INFO : PROGRESS: at sentence #930000, processed 6708573 words, keeping 236393 word types

2019-01-02 14:42:38,998 : INFO : PROGRESS: at sentence #940000, processed 6779956 words, keeping 238052 word types

2019-01-02 14:42:39,026 : INFO : PROGRESS: at sentence #950000, processed 6852599 words, keeping 239716 word types

2019-01-02 14:42:39,054 : INFO : PROGRESS: at sentence #960000, processed 6924717 words, keeping 241354 word types

2019-01-02 14:42:39,081 : INFO : PROGRESS: at sentence #970000, processed 6996992 words, keeping 242980 word types

2019-01-02 14:42:39,109 : INFO : PROGRESS: at sentence #980000, processed 7068402 words, keeping 244646 word types

2019-01-02 14:42:39,136 : INFO : PROGRESS: at sentence #990000, processed 7140346 words, keeping 246186 word types

2019-01-02 14:42:39,163 : INFO : PROGRESS: at sentence #1000000, processed 7211757 words, keeping 247726 word types

2019-01-02 14:42:39,190 : INFO : PROGRESS: at sentence #1010000, processed 7283267 words, keeping 249288 word types

2019-01-02 14:42:39,217 : INFO : PROGRESS: at sentence #1020000, processed 7355299 words, keeping 250860 word types

2019-01-02 14:42:39,244 : INFO : PROGRESS: at sentence #1030000, processed 7426918 words, keeping 252366 word types

2019-01-02 14:42:39,271 : INFO : PROGRESS: at sentence #1040000, processed 7498815 words, keeping 253930 word types

2019-01-02 14:42:39,298 : INFO : PROGRESS: at sentence #1050000, processed 7570499 words, keeping 255471 word types

2019-01-02 14:42:39,329 : INFO : PROGRESS: at sentence #1060000, processed 7643251 words, keeping 257035 word types

2019-01-02 14:42:39,365 : INFO : PROGRESS: at sentence #1070000, processed 7714721 words, keeping 258509 word types

2019-01-02 14:42:39,402 : INFO : PROGRESS: at sentence #1080000, processed 7787371 words, keeping 260071 word types

2019-01-02 14:42:39,436 : INFO : PROGRESS: at sentence #1090000, processed 7859336 words, keeping 261683 word types

2019-01-02 14:42:39,470 : INFO : PROGRESS: at sentence #1100000, processed 7932029 words, keeping 263278 word types

2019-01-02 14:42:39,506 : INFO : PROGRESS: at sentence #1110000, processed 8004146 words, keeping 264800 word types

2019-01-02 14:42:39,541 : INFO : PROGRESS: at sentence #1120000, processed 8075880 words, keeping 266309 word types

2019-01-02 14:42:39,577 : INFO : PROGRESS: at sentence #1130000, processed 8148163 words, keeping 267826 word types

2019-01-02 14:42:39,611 : INFO : PROGRESS: at sentence #1140000, processed 8220487 words, keeping 269391 word types

2019-01-02 14:42:39,646 : INFO : PROGRESS: at sentence #1150000, processed 8292498 words, keeping 270894 word types

2019-01-02 14:42:39,677 : INFO : PROGRESS: at sentence #1160000, processed 8363838 words, keeping 272400 word types

2019-01-02 14:42:39,705 : INFO : PROGRESS: at sentence #1170000, processed 8435510 words, keeping 273970 word types

2019-01-02 14:42:39,734 : INFO : PROGRESS: at sentence #1180000, processed 8507795 words, keeping 275521 word types

2019-01-02 14:42:39,761 : INFO : PROGRESS: at sentence #1190000, processed 8579080 words, keeping 277007 word types

2019-01-02 14:42:39,789 : INFO : PROGRESS: at sentence #1200000, processed 8650606 words, keeping 278457 word types

2019-01-02 14:42:39,818 : INFO : PROGRESS: at sentence #1210000, processed 8721893 words, keeping 279959 word types

2019-01-02 14:42:39,845 : INFO : PROGRESS: at sentence #1220000, processed 8793795 words, keeping 281427 word types

2019-01-02 14:42:39,873 : INFO : PROGRESS: at sentence #1230000, processed 8865726 words, keeping 282981 word types

2019-01-02 14:42:39,901 : INFO : PROGRESS: at sentence #1240000, processed 8938173 words, keeping 284542 word types

2019-01-02 14:42:39,930 : INFO : PROGRESS: at sentence #1250000, processed 9010842 words, keeping 286064 word types

2019-01-02 14:42:39,959 : INFO : PROGRESS: at sentence #1260000, processed 9083261 words, keeping 287521 word types

2019-01-02 14:42:39,987 : INFO : PROGRESS: at sentence #1270000, processed 9155616 words, keeping 288987 word types

2019-01-02 14:42:40,015 : INFO : collected 290418 word types from a corpus of 9227204 raw words and 1280000 sentences

2019-01-02 14:42:40,016 : INFO : Loading a fresh vocabulary

2019-01-02 14:42:40,217 : INFO : effective_min_count=10 retains 30369 unique words (10% of original 290418, drops 260049)

2019-01-02 14:42:40,218 : INFO : effective_min_count=10 leaves 8780739 word corpus (95% of original 9227204, drops 446465)

2019-01-02 14:42:40,331 : INFO : deleting the raw counts dictionary of 290418 items

2019-01-02 14:42:40,343 : INFO : sample=0.001 downsamples 45 most-common words

2019-01-02 14:42:40,347 : INFO : downsampling leaves estimated 8222658 word corpus (93.6% of prior 8780739)

2019-01-02 14:42:40,514 : INFO : estimated required memory for 30369 words and 300 dimensions: 88070100 bytes

2019-01-02 14:42:40,515 : INFO : resetting layer weights

2019-01-02 14:42:41,076 : INFO : training model with 8 workers on 30369 vocabulary and 300 features, using sg=0 hs=0 sample=0.001 negative=5 window=7

2019-01-02 14:42:42,125 : INFO : EPOCH 1 - PROGRESS: at 3.36% examples, 269518 words/s, in_qsize 15, out_qsize 0

2019-01-02 14:42:43,206 : INFO : EPOCH 1 - PROGRESS: at 7.71% examples, 300246 words/s, in_qsize 15, out_qsize 0

2019-01-02 14:42:44,240 : INFO : EPOCH 1 - PROGRESS: at 11.73% examples, 306466 words/s, in_qsize 16, out_qsize 0

2019-01-02 14:42:45,249 : INFO : EPOCH 1 - PROGRESS: at 15.84% examples, 313365 words/s, in_qsize 16, out_qsize 0

2019-01-02 14:42:46,269 : INFO : EPOCH 1 - PROGRESS: at 19.84% examples, 315331 words/s, in_qsize 16, out_qsize 1

2019-01-02 14:42:47,326 : INFO : EPOCH 1 - PROGRESS: at 23.96% examples, 316222 words/s, in_qsize 13, out_qsize 2

2019-01-02 14:42:48,405 : INFO : EPOCH 1 - PROGRESS: at 28.29% examples, 318253 words/s, in_qsize 15, out_qsize 0

2019-01-02 14:42:49,441 : INFO : EPOCH 1 - PROGRESS: at 32.62% examples, 321465 words/s, in_qsize 14, out_qsize 1

2019-01-02 14:42:50,458 : INFO : EPOCH 1 - PROGRESS: at 36.61% examples, 321757 words/s, in_qsize 15, out_qsize 1

2019-01-02 14:42:51,465 : INFO : EPOCH 1 - PROGRESS: at 40.62% examples, 322285 words/s, in_qsize 15, out_qsize 0

2019-01-02 14:42:52,475 : INFO : EPOCH 1 - PROGRESS: at 44.83% examples, 324210 words/s, in_qsize 15, out_qsize 0

2019-01-02 14:42:53,489 : INFO : EPOCH 1 - PROGRESS: at 48.73% examples, 323601 words/s, in_qsize 15, out_qsize 0

2019-01-02 14:42:54,493 : INFO : EPOCH 1 - PROGRESS: at 52.95% examples, 325281 words/s, in_qsize 15, out_qsize 0

2019-01-02 14:42:55,494 : INFO : EPOCH 1 - PROGRESS: at 56.51% examples, 323102 words/s, in_qsize 14, out_qsize 1

2019-01-02 14:42:56,554 : INFO : EPOCH 1 - PROGRESS: at 60.96% examples, 324587 words/s, in_qsize 15, out_qsize 1

2019-01-02 14:42:57,568 : INFO : EPOCH 1 - PROGRESS: at 64.40% examples, 321880 words/s, in_qsize 16, out_qsize 0

2019-01-02 14:42:58,617 : INFO : EPOCH 1 - PROGRESS: at 68.64% examples, 322443 words/s, in_qsize 15, out_qsize 0

2019-01-02 14:42:59,691 : INFO : EPOCH 1 - PROGRESS: at 72.64% examples, 322063 words/s, in_qsize 15, out_qsize 1

2019-01-02 14:43:00,693 : INFO : EPOCH 1 - PROGRESS: at 76.77% examples, 322365 words/s, in_qsize 16, out_qsize 0

2019-01-02 14:43:01,724 : INFO : EPOCH 1 - PROGRESS: at 80.90% examples, 322662 words/s, in_qsize 14, out_qsize 1

2019-01-02 14:43:02,787 : INFO : EPOCH 1 - PROGRESS: at 85.02% examples, 322453 words/s, in_qsize 14, out_qsize 1

2019-01-02 14:43:03,825 : INFO : EPOCH 1 - PROGRESS: at 89.23% examples, 323011 words/s, in_qsize 15, out_qsize 0

2019-01-02 14:43:04,849 : INFO : EPOCH 1 - PROGRESS: at 93.26% examples, 322956 words/s, in_qsize 16, out_qsize 0

2019-01-02 14:43:05,921 : INFO : EPOCH 1 - PROGRESS: at 97.50% examples, 322999 words/s, in_qsize 15, out_qsize 0

2019-01-02 14:43:06,374 : INFO : worker thread finished; awaiting finish of 7 more threads

2019-01-02 14:43:06,383 : INFO : worker thread finished; awaiting finish of 6 more threads

2019-01-02 14:43:06,385 : INFO : worker thread finished; awaiting finish of 5 more threads

2019-01-02 14:43:06,407 : INFO : worker thread finished; awaiting finish of 4 more threads

2019-01-02 14:43:06,408 : INFO : worker thread finished; awaiting finish of 3 more threads

2019-01-02 14:43:06,422 : INFO : worker thread finished; awaiting finish of 2 more threads

2019-01-02 14:43:06,429 : INFO : worker thread finished; awaiting finish of 1 more threads

2019-01-02 14:43:06,431 : INFO : worker thread finished; awaiting finish of 0 more threads

2019-01-02 14:43:06,431 : INFO : EPOCH - 1 : training on 9227204 raw words (8223054 effective words) took 25.3s, 324626 effective words/s

2019-01-02 14:43:07,447 : INFO : EPOCH 2 - PROGRESS: at 3.58% examples, 292601 words/s, in_qsize 15, out_qsize 0

2019-01-02 14:43:08,468 : INFO : EPOCH 2 - PROGRESS: at 7.60% examples, 307772 words/s, in_qsize 15, out_qsize 0

2019-01-02 14:43:09,492 : INFO : EPOCH 2 - PROGRESS: at 11.29% examples, 304457 words/s, in_qsize 16, out_qsize 5

2019-01-02 14:43:10,527 : INFO : EPOCH 2 - PROGRESS: at 15.52% examples, 311803 words/s, in_qsize 15, out_qsize 0

2019-01-02 14:43:11,590 : INFO : EPOCH 2 - PROGRESS: at 19.62% examples, 313120 words/s, in_qsize 15, out_qsize 0

2019-01-02 14:43:12,614 : INFO : EPOCH 2 - PROGRESS: at 23.96% examples, 318984 words/s, in_qsize 15, out_qsize 0

2019-01-02 14:43:13,630 : INFO : EPOCH 2 - PROGRESS: at 28.18% examples, 322238 words/s, in_qsize 15, out_qsize 0

2019-01-02 14:43:14,720 : INFO : EPOCH 2 - PROGRESS: at 32.19% examples, 319616 words/s, in_qsize 12, out_qsize 3

2019-01-02 14:43:15,754 : INFO : EPOCH 2 - PROGRESS: at 36.40% examples, 321453 words/s, in_qsize 15, out_qsize 0

2019-01-02 14:43:16,781 : INFO : EPOCH 2 - PROGRESS: at 40.62% examples, 323133 words/s, in_qsize 16, out_qsize 0

2019-01-02 14:43:17,787 : INFO : EPOCH 2 - PROGRESS: at 44.62% examples, 323525 words/s, in_qsize 15, out_qsize 0

2019-01-02 14:43:18,818 : INFO : EPOCH 2 - PROGRESS: at 48.62% examples, 323225 words/s, in_qsize 15, out_qsize 0

2019-01-02 14:43:19,829 : INFO : EPOCH 2 - PROGRESS: at 52.84% examples, 324790 words/s, in_qsize 15, out_qsize 0

2019-01-02 14:43:20,830 : INFO : EPOCH 2 - PROGRESS: at 56.95% examples, 325763 words/s, in_qsize 15, out_qsize 0

2019-01-02 14:43:21,867 : INFO : EPOCH 2 - PROGRESS: at 60.52% examples, 322919 words/s, in_qsize 16, out_qsize 1

2019-01-02 14:43:22,909 : INFO : EPOCH 2 - PROGRESS: at 64.73% examples, 324216 words/s, in_qsize 15, out_qsize 2

2019-01-02 14:43:24,014 : INFO : EPOCH 2 - PROGRESS: at 69.29% examples, 324528 words/s, in_qsize 15, out_qsize 0

2019-01-02 14:43:25,051 : INFO : EPOCH 2 - PROGRESS: at 73.51% examples, 325108 words/s, in_qsize 15, out_qsize 0

2019-01-02 14:43:26,071 : INFO : EPOCH 2 - PROGRESS: at 77.63% examples, 325449 words/s, in_qsize 16, out_qsize 0

2019-01-02 14:43:27,100 : INFO : EPOCH 2 - PROGRESS: at 81.45% examples, 324330 words/s, in_qsize 16, out_qsize 1

2019-01-02 14:43:28,169 : INFO : EPOCH 2 - PROGRESS: at 85.88% examples, 325181 words/s, in_qsize 15, out_qsize 0

2019-01-02 14:43:29,172 : INFO : EPOCH 2 - PROGRESS: at 90.00% examples, 325719 words/s, in_qsize 16, out_qsize 0

2019-01-02 14:43:30,191 : INFO : EPOCH 2 - PROGRESS: at 93.92% examples, 325243 words/s, in_qsize 15, out_qsize 0

2019-01-02 14:43:31,252 : INFO : EPOCH 2 - PROGRESS: at 98.04% examples, 324962 words/s, in_qsize 14, out_qsize 1

2019-01-02 14:43:31,508 : INFO : worker thread finished; awaiting finish of 7 more threads

2019-01-02 14:43:31,511 : INFO : worker thread finished; awaiting finish of 6 more threads

2019-01-02 14:43:31,546 : INFO : worker thread finished; awaiting finish of 5 more threads

2019-01-02 14:43:31,548 : INFO : worker thread finished; awaiting finish of 4 more threads

2019-01-02 14:43:31,559 : INFO : worker thread finished; awaiting finish of 3 more threads

2019-01-02 14:43:31,570 : INFO : worker thread finished; awaiting finish of 2 more threads

2019-01-02 14:43:31,572 : INFO : worker thread finished; awaiting finish of 1 more threads

2019-01-02 14:43:31,578 : INFO : worker thread finished; awaiting finish of 0 more threads

2019-01-02 14:43:31,579 : INFO : EPOCH - 2 : training on 9227204 raw words (8223553 effective words) took 25.1s, 327161 effective words/s

2019-01-02 14:43:32,668 : INFO : EPOCH 3 - PROGRESS: at 3.80% examples, 288897 words/s, in_qsize 16, out_qsize 1

2019-01-02 14:43:33,701 : INFO : EPOCH 3 - PROGRESS: at 7.82% examples, 308014 words/s, in_qsize 15, out_qsize 0

2019-01-02 14:43:34,677 : INFO : EPOCH 3 - PROGRESS: at 12.17% examples, 323011 words/s, in_qsize 16, out_qsize 0

2019-01-02 14:43:35,684 : INFO : EPOCH 3 - PROGRESS: at 15.94% examples, 319698 words/s, in_qsize 12, out_qsize 3

2019-01-02 14:43:36,705 : INFO : EPOCH 3 - PROGRESS: at 19.84% examples, 318500 words/s, in_qsize 15, out_qsize 0

2019-01-02 14:43:37,763 : INFO : EPOCH 3 - PROGRESS: at 23.96% examples, 318805 words/s, in_qsize 13, out_qsize 2

2019-01-02 14:43:38,831 : INFO : EPOCH 3 - PROGRESS: at 28.50% examples, 323395 words/s, in_qsize 16, out_qsize 0

2019-01-02 14:43:39,832 : INFO : EPOCH 3 - PROGRESS: at 32.40% examples, 323044 words/s, in_qsize 15, out_qsize 1

2019-01-02 14:43:40,859 : INFO : EPOCH 3 - PROGRESS: at 36.61% examples, 324718 words/s, in_qsize 16, out_qsize 0

2019-01-02 14:43:41,919 : INFO : EPOCH 3 - PROGRESS: at 40.62% examples, 323321 words/s, in_qsize 15, out_qsize 0

2019-01-02 14:43:42,996 : INFO : EPOCH 3 - PROGRESS: at 45.27% examples, 326367 words/s, in_qsize 15, out_qsize 1

2019-01-02 14:43:44,059 : INFO : EPOCH 3 - PROGRESS: at 49.16% examples, 324270 words/s, in_qsize 15, out_qsize 0

2019-01-02 14:43:45,068 : INFO : EPOCH 3 - PROGRESS: at 53.38% examples, 325797 words/s, in_qsize 15, out_qsize 0

2019-01-02 14:43:46,200 : INFO : EPOCH 3 - PROGRESS: at 57.38% examples, 323123 words/s, in_qsize 12, out_qsize 3

2019-01-02 14:43:47,294 : INFO : EPOCH 3 - PROGRESS: at 62.03% examples, 325015 words/s, in_qsize 15, out_qsize 0

2019-01-02 14:43:48,339 : INFO : EPOCH 3 - PROGRESS: at 66.15% examples, 324949 words/s, in_qsize 16, out_qsize 1

2019-01-02 14:43:49,359 : INFO : EPOCH 3 - PROGRESS: at 70.27% examples, 325347 words/s, in_qsize 15, out_qsize 0

2019-01-02 14:43:50,388 : INFO : EPOCH 3 - PROGRESS: at 74.27% examples, 325052 words/s, in_qsize 13, out_qsize 2

2019-01-02 14:43:51,416 : INFO : EPOCH 3 - PROGRESS: at 78.62% examples, 326170 words/s, in_qsize 15, out_qsize 0

2019-01-02 14:43:52,467 : INFO : EPOCH 3 - PROGRESS: at 82.64% examples, 325546 words/s, in_qsize 15, out_qsize 0

2019-01-02 14:43:53,676 : INFO : EPOCH 3 - PROGRESS: at 87.18% examples, 324663 words/s, in_qsize 15, out_qsize 0

2019-01-02 14:43:54,703 : INFO : EPOCH 3 - PROGRESS: at 91.52% examples, 325644 words/s, in_qsize 15, out_qsize 0

2019-01-02 14:43:55,735 : INFO : EPOCH 3 - PROGRESS: at 95.77% examples, 326114 words/s, in_qsize 15, out_qsize 0

2019-01-02 14:43:56,660 : INFO : worker thread finished; awaiting finish of 7 more threads

2019-01-02 14:43:56,663 : INFO : worker thread finished; awaiting finish of 6 more threads

2019-01-02 14:43:56,665 : INFO : worker thread finished; awaiting finish of 5 more threads

2019-01-02 14:43:56,672 : INFO : worker thread finished; awaiting finish of 4 more threads

2019-01-02 14:43:56,679 : INFO : worker thread finished; awaiting finish of 3 more threads

2019-01-02 14:43:56,690 : INFO : worker thread finished; awaiting finish of 2 more threads

2019-01-02 14:43:56,697 : INFO : worker thread finished; awaiting finish of 1 more threads

2019-01-02 14:43:56,701 : INFO : worker thread finished; awaiting finish of 0 more threads

2019-01-02 14:43:56,702 : INFO : EPOCH - 3 : training on 9227204 raw words (8222935 effective words) took 25.1s, 327432 effective words/s

2019-01-02 14:43:57,741 : INFO : EPOCH 4 - PROGRESS: at 3.58% examples, 291533 words/s, in_qsize 14, out_qsize 1

2019-01-02 14:43:58,846 : INFO : EPOCH 4 - PROGRESS: at 8.04% examples, 311963 words/s, in_qsize 15, out_qsize 0

2019-01-02 14:43:59,871 : INFO : EPOCH 4 - PROGRESS: at 11.95% examples, 313371 words/s, in_qsize 13, out_qsize 4

2019-01-02 14:44:00,994 : INFO : EPOCH 4 - PROGRESS: at 16.37% examples, 315690 words/s, in_qsize 11, out_qsize 4

2019-01-02 14:44:02,025 : INFO : EPOCH 4 - PROGRESS: at 20.81% examples, 323175 words/s, in_qsize 15, out_qsize 0

2019-01-02 14:44:03,054 : INFO : EPOCH 4 - PROGRESS: at 24.83% examples, 322735 words/s, in_qsize 16, out_qsize 0

2019-01-02 14:44:04,055 : INFO : EPOCH 4 - PROGRESS: at 28.51% examples, 320034 words/s, in_qsize 15, out_qsize 0

2019-01-02 14:44:05,109 : INFO : EPOCH 4 - PROGRESS: at 32.95% examples, 323325 words/s, in_qsize 13, out_qsize 2

2019-01-02 14:44:06,139 : INFO : EPOCH 4 - PROGRESS: at 37.27% examples, 325786 words/s, in_qsize 15, out_qsize 0

2019-01-02 14:44:07,170 : INFO : EPOCH 4 - PROGRESS: at 41.16% examples, 324352 words/s, in_qsize 14, out_qsize 1

2019-01-02 14:44:08,184 : INFO : EPOCH 4 - PROGRESS: at 45.37% examples, 325941 words/s, in_qsize 13, out_qsize 0

2019-01-02 14:44:09,212 : INFO : EPOCH 4 - PROGRESS: at 49.16% examples, 324101 words/s, in_qsize 15, out_qsize 0

2019-01-02 14:44:10,218 : INFO : EPOCH 4 - PROGRESS: at 53.59% examples, 327026 words/s, in_qsize 15, out_qsize 0

2019-01-02 14:44:11,230 : INFO : EPOCH 4 - PROGRESS: at 57.49% examples, 326342 words/s, in_qsize 13, out_qsize 1

2019-01-02 14:44:12,332 : INFO : EPOCH 4 - PROGRESS: at 61.60% examples, 324976 words/s, in_qsize 15, out_qsize 0

2019-01-02 14:44:13,353 : INFO : EPOCH 4 - PROGRESS: at 65.93% examples, 326459 words/s, in_qsize 13, out_qsize 0

2019-01-02 14:44:14,387 : INFO : EPOCH 4 - PROGRESS: at 69.83% examples, 325508 words/s, in_qsize 14, out_qsize 1

2019-01-02 14:44:15,428 : INFO : EPOCH 4 - PROGRESS: at 73.83% examples, 324994 words/s, in_qsize 15, out_qsize 0

2019-01-02 14:44:16,463 : INFO : EPOCH 4 - PROGRESS: at 77.96% examples, 325109 words/s, in_qsize 15, out_qsize 0

2019-01-02 14:44:17,482 : INFO : EPOCH 4 - PROGRESS: at 82.42% examples, 326739 words/s, in_qsize 15, out_qsize 0

2019-01-02 14:44:18,487 : INFO : EPOCH 4 - PROGRESS: at 86.10% examples, 325560 words/s, in_qsize 15, out_qsize 0

2019-01-02 14:44:19,498 : INFO : EPOCH 4 - PROGRESS: at 90.22% examples, 325963 words/s, in_qsize 16, out_qsize 0

2019-01-02 14:44:20,513 : INFO : EPOCH 4 - PROGRESS: at 94.03% examples, 325141 words/s, in_qsize 15, out_qsize 0

2019-01-02 14:44:21,517 : INFO : EPOCH 4 - PROGRESS: at 98.47% examples, 326702 words/s, in_qsize 15, out_qsize 0

2019-01-02 14:44:21,729 : INFO : worker thread finished; awaiting finish of 7 more threads

2019-01-02 14:44:21,744 : INFO : worker thread finished; awaiting finish of 6 more threads

2019-01-02 14:44:21,748 : INFO : worker thread finished; awaiting finish of 5 more threads

2019-01-02 14:44:21,755 : INFO : worker thread finished; awaiting finish of 4 more threads

2019-01-02 14:44:21,770 : INFO : worker thread finished; awaiting finish of 3 more threads

2019-01-02 14:44:21,791 : INFO : worker thread finished; awaiting finish of 2 more threads

2019-01-02 14:44:21,793 : INFO : worker thread finished; awaiting finish of 1 more threads

2019-01-02 14:44:21,805 : INFO : worker thread finished; awaiting finish of 0 more threads

2019-01-02 14:44:21,806 : INFO : EPOCH - 4 : training on 9227204 raw words (8222607 effective words) took 25.1s, 327950 effective words/s

2019-01-02 14:44:22,823 : INFO : EPOCH 5 - PROGRESS: at 3.58% examples, 293058 words/s, in_qsize 15, out_qsize 0

2019-01-02 14:44:23,851 : INFO : EPOCH 5 - PROGRESS: at 7.60% examples, 307161 words/s, in_qsize 15, out_qsize 0

2019-01-02 14:44:24,874 : INFO : EPOCH 5 - PROGRESS: at 11.95% examples, 321008 words/s, in_qsize 15, out_qsize 0

2019-01-02 14:44:25,939 : INFO : EPOCH 5 - PROGRESS: at 15.73% examples, 313632 words/s, in_qsize 15, out_qsize 0

2019-01-02 14:44:26,952 : INFO : EPOCH 5 - PROGRESS: at 19.95% examples, 319378 words/s, in_qsize 13, out_qsize 2

2019-01-02 14:44:27,955 : INFO : EPOCH 5 - PROGRESS: at 24.06% examples, 322386 words/s, in_qsize 16, out_qsize 0

2019-01-02 14:44:28,995 : INFO : EPOCH 5 - PROGRESS: at 28.07% examples, 322462 words/s, in_qsize 15, out_qsize 0

2019-01-02 14:44:29,976 : INFO : EPOCH 5 - PROGRESS: at 31.86% examples, 321173 words/s, in_qsize 15, out_qsize 0

2019-01-02 14:44:30,980 : INFO : EPOCH 5 - PROGRESS: at 36.18% examples, 324876 words/s, in_qsize 15, out_qsize 0

2019-01-02 14:44:31,986 : INFO : EPOCH 5 - PROGRESS: at 39.97% examples, 323389 words/s, in_qsize 15, out_qsize 0

2019-01-02 14:44:33,004 : INFO : EPOCH 5 - PROGRESS: at 44.07% examples, 324222 words/s, in_qsize 16, out_qsize 0

2019-01-02 14:44:34,103 : INFO : EPOCH 5 - PROGRESS: at 48.30% examples, 323514 words/s, in_qsize 16, out_qsize 0

2019-01-02 14:44:35,134 : INFO : EPOCH 5 - PROGRESS: at 52.40% examples, 323897 words/s, in_qsize 14, out_qsize 1

2019-01-02 14:44:36,136 : INFO : EPOCH 5 - PROGRESS: at 56.62% examples, 325518 words/s, in_qsize 15, out_qsize 0

2019-01-02 14:44:37,140 : INFO : EPOCH 5 - PROGRESS: at 60.52% examples, 325128 words/s, in_qsize 16, out_qsize 1

2019-01-02 14:44:38,147 : INFO : EPOCH 5 - PROGRESS: at 64.62% examples, 325802 words/s, in_qsize 15, out_qsize 0

2019-01-02 14:44:39,165 : INFO : EPOCH 5 - PROGRESS: at 68.64% examples, 325677 words/s, in_qsize 15, out_qsize 0

2019-01-02 14:44:40,195 : INFO : EPOCH 5 - PROGRESS: at 73.19% examples, 327780 words/s, in_qsize 15, out_qsize 0

2019-01-02 14:44:41,199 : INFO : EPOCH 5 - PROGRESS: at 76.88% examples, 326429 words/s, in_qsize 15, out_qsize 0

2019-01-02 14:44:42,234 : INFO : EPOCH 5 - PROGRESS: at 81.12% examples, 326880 words/s, in_qsize 15, out_qsize 0

2019-01-02 14:44:43,238 : INFO : EPOCH 5 - PROGRESS: at 84.91% examples, 326119 words/s, in_qsize 16, out_qsize 2

2019-01-02 14:44:44,240 : INFO : EPOCH 5 - PROGRESS: at 89.23% examples, 327432 words/s, in_qsize 15, out_qsize 0

2019-01-02 14:44:45,367 : INFO : EPOCH 5 - PROGRESS: at 93.26% examples, 326150 words/s, in_qsize 15, out_qsize 5

2019-01-02 14:44:46,396 : INFO : EPOCH 5 - PROGRESS: at 97.82% examples, 327312 words/s, in_qsize 15, out_qsize 0

2019-01-02 14:44:46,794 : INFO : worker thread finished; awaiting finish of 7 more threads

2019-01-02 14:44:46,797 : INFO : worker thread finished; awaiting finish of 6 more threads

2019-01-02 14:44:46,798 : INFO : worker thread finished; awaiting finish of 5 more threads

2019-01-02 14:44:46,819 : INFO : worker thread finished; awaiting finish of 4 more threads

2019-01-02 14:44:46,832 : INFO : worker thread finished; awaiting finish of 3 more threads

2019-01-02 14:44:46,841 : INFO : worker thread finished; awaiting finish of 2 more threads

2019-01-02 14:44:46,846 : INFO : worker thread finished; awaiting finish of 1 more threads

2019-01-02 14:44:46,863 : INFO : worker thread finished; awaiting finish of 0 more threads

2019-01-02 14:44:46,864 : INFO : EPOCH - 5 : training on 9227204 raw words (8222968 effective words) took 25.0s, 328353 effective words/s

2019-01-02 14:44:47,891 : INFO : EPOCH 6 - PROGRESS: at 3.69% examples, 298656 words/s, in_qsize 16, out_qsize 0

2019-01-02 14:44:48,926 : INFO : EPOCH 6 - PROGRESS: at 7.93% examples, 317348 words/s, in_qsize 15, out_qsize 0

2019-01-02 14:44:49,931 : INFO : EPOCH 6 - PROGRESS: at 11.84% examples, 318024 words/s, in_qsize 16, out_qsize 0

2019-01-02 14:44:50,965 : INFO : EPOCH 6 - PROGRESS: at 15.95% examples, 320351 words/s, in_qsize 15, out_qsize 0

2019-01-02 14:44:51,975 : INFO : EPOCH 6 - PROGRESS: at 20.05% examples, 323241 words/s, in_qsize 15, out_qsize 0

2019-01-02 14:44:52,976 : INFO : EPOCH 6 - PROGRESS: at 24.18% examples, 325729 words/s, in_qsize 15, out_qsize 0

2019-01-02 14:44:54,019 : INFO : EPOCH 6 - PROGRESS: at 28.07% examples, 323098 words/s, in_qsize 15, out_qsize 1

2019-01-02 14:44:55,070 : INFO : EPOCH 6 - PROGRESS: at 32.62% examples, 327280 words/s, in_qsize 16, out_qsize 0
2019-01-02 14:44:56,217 : INFO : EPOCH 6 - PROGRESS: at 36.62% examples, 322396 words/s, in_qsize 14, out_qsize 3

2019-01-02 14:44:57,225 : INFO : EPOCH 6 - PROGRESS: at 41.16% examples, 327139 words/s, in_qsize 15, out_qsize 0

2019-01-02 14:44:58,278 : INFO : EPOCH 6 - PROGRESS: at 45.27% examples, 326613 words/s, in_qsize 15, out_qsize 0

2019-01-02 14:44:59,280 : INFO : EPOCH 6 - PROGRESS: at 49.06% examples, 325384 words/s, in_qsize 15, out_qsize 0

2019-01-02 14:45:00,302 : INFO : EPOCH 6 - PROGRESS: at 53.38% examples, 327163 words/s, in_qsize 16, out_qsize 1

2019-01-02 14:45:01,363 : INFO : EPOCH 6 - PROGRESS: at 57.27% examples, 325383 words/s, in_qsize 16, out_qsize 1

2019-01-02 14:45:02,465 : INFO : EPOCH 6 - PROGRESS: at 61.71% examples, 325805 words/s, in_qsize 14, out_qsize 2
2019-01-02 14:45:03,527 : INFO : EPOCH 6 - PROGRESS: at 65.83% examples, 325354 words/s, in_qsize 16, out_qsize 1

2019-01-02 14:45:04,535 : INFO : EPOCH 6 - PROGRESS: at 69.72% examples, 324940 words/s, in_qsize 15, out_qsize 0

2019-01-02 14:45:05,568 : INFO : EPOCH 6 - PROGRESS: at 73.83% examples, 325074 words/s, in_qsize 15, out_qsize 0

2019-01-02 14:45:06,583 : INFO : EPOCH 6 - PROGRESS: at 77.74% examples, 324594 words/s, in_qsize 16, out_qsize 1

2019-01-02 14:45:07,629 : INFO : EPOCH 6 - PROGRESS: at 82.32% examples, 326271 words/s, in_qsize 12, out_qsize 2

2019-01-02 14:45:08,636 : INFO : EPOCH 6 - PROGRESS: at 86.10% examples, 325488 words/s, in_qsize 15, out_qsize 0

2019-01-02 14:45:09,685 : INFO : EPOCH 6 - PROGRESS: at 90.65% examples, 326901 words/s, in_qsize 16, out_qsize 0

2019-01-02 14:45:10,755 : INFO : EPOCH 6 - PROGRESS: at 94.91% examples, 326791 words/s, in_qsize 16, out_qsize 0

2019-01-02 14:45:11,799 : INFO : EPOCH 6 - PROGRESS: at 98.79% examples, 325963 words/s, in_qsize 11, out_qsize 1

2019-01-02 14:45:11,852 : INFO : worker thread finished; awaiting finish of 7 more threads

2019-01-02 14:45:11,874 : INFO : worker thread finished; awaiting finish of 6 more threads

2019-01-02 14:45:11,877 : INFO : worker thread finished; awaiting finish of 5 more threads

2019-01-02 14:45:11,878 : INFO : worker thread finished; awaiting finish of 4 more threads

2019-01-02 14:45:11,891 : INFO : worker thread finished; awaiting finish of 3 more threads

2019-01-02 14:45:11,932 : INFO : worker thread finished; awaiting finish of 2 more threads

2019-01-02 14:45:11,953 : INFO : worker thread finished; awaiting finish of 1 more threads

2019-01-02 14:45:11,956 : INFO : worker thread finished; awaiting finish of 0 more threads

2019-01-02 14:45:11,957 : INFO : EPOCH - 6 : training on 9227204 raw words (8222679 effective words) took 25.1s, 327855 effective words/s

2019-01-02 14:45:12,971 : INFO : EPOCH 7 - PROGRESS: at 3.36% examples, 274883 words/s, in_qsize 15, out_qsize 0

2019-01-02 14:45:13,984 : INFO : EPOCH 7 - PROGRESS: at 7.71% examples, 313321 words/s, in_qsize 16, out_qsize 0

2019-01-02 14:45:14,992 : INFO : EPOCH 7 - PROGRESS: at 11.73% examples, 317965 words/s, in_qsize 15, out_qsize 0

2019-01-02 14:45:16,001 : INFO : EPOCH 7 - PROGRESS: at 15.52% examples, 315612 words/s, in_qsize 14, out_qsize 4

2019-01-02 14:45:17,019 : INFO : EPOCH 7 - PROGRESS: at 19.51% examples, 317200 words/s, in_qsize 15, out_qsize 0

2019-01-02 14:45:18,044 : INFO : EPOCH 7 - PROGRESS: at 23.84% examples, 322379 words/s, in_qsize 16, out_qsize 0

2019-01-02 14:45:19,046 : INFO : EPOCH 7 - PROGRESS: at 27.53% examples, 319546 words/s, in_qsize 15, out_qsize 0

2019-01-02 14:45:20,089 : INFO : EPOCH 7 - PROGRESS: at 31.75% examples, 321330 words/s, in_qsize 15, out_qsize 0

2019-01-02 14:45:21,090 : INFO : EPOCH 7 - PROGRESS: at 35.86% examples, 323165 words/s, in_qsize 15, out_qsize 0

2019-01-02 14:45:22,091 : INFO : EPOCH 7 - PROGRESS: at 39.54% examples, 321141 words/s, in_qsize 15, out_qsize 0
2019-01-02 14:45:23,113 : INFO : EPOCH 7 - PROGRESS: at 43.75% examples, 322830 words/s, in_qsize 15, out_qsize 1

2019-01-02 14:45:24,138 : INFO : EPOCH 7 - PROGRESS: at 47.86% examples, 323473 words/s, in_qsize 15, out_qsize 0

2019-01-02 14:45:25,201 : INFO : EPOCH 7 - PROGRESS: at 51.86% examples, 322399 words/s, in_qsize 15, out_qsize 0

2019-01-02 14:45:26,229 : INFO : EPOCH 7 - PROGRESS: at 56.29% examples, 324797 words/s, in_qsize 14, out_qsize 0

2019-01-02 14:45:27,282 : INFO : EPOCH 7 - PROGRESS: at 60.19% examples, 323422 words/s, in_qsize 15, out_qsize 0

2019-01-02 14:45:28,379 : INFO : EPOCH 7 - PROGRESS: at 64.62% examples, 324052 words/s, in_qsize 14, out_qsize 1

2019-01-02 14:45:29,387 : INFO : EPOCH 7 - PROGRESS: at 69.07% examples, 326280 words/s, in_qsize 15, out_qsize 0

2019-01-02 14:45:30,424 : INFO : EPOCH 7 - PROGRESS: at 72.64% examples, 323852 words/s, in_qsize 15, out_qsize 0

2019-01-02 14:45:31,431 : INFO : EPOCH 7 - PROGRESS: at 76.66% examples, 324021 words/s, in_qsize 13, out_qsize 2

2019-01-02 14:45:32,478 : INFO : EPOCH 7 - PROGRESS: at 80.90% examples, 324420 words/s, in_qsize 16, out_qsize 1

2019-01-02 14:45:33,491 : INFO : EPOCH 7 - PROGRESS: at 85.02% examples, 324892 words/s, in_qsize 15, out_qsize 0

2019-01-02 14:45:34,500 : INFO : EPOCH 7 - PROGRESS: at 89.13% examples, 325347 words/s, in_qsize 15, out_qsize 0

2019-01-02 14:45:35,611 : INFO : EPOCH 7 - PROGRESS: at 92.83% examples, 323242 words/s, in_qsize 15, out_qsize 2

2019-01-02 14:45:36,584 : INFO : EPOCH 7 - PROGRESS: at 97.29% examples, 324921 words/s, in_qsize 15, out_qsize 0

2019-01-02 14:45:37,057 : INFO : worker thread finished; awaiting finish of 7 more threads

2019-01-02 14:45:37,059 : INFO : worker thread finished; awaiting finish of 6 more threads

2019-01-02 14:45:37,091 : INFO : worker thread finished; awaiting finish of 5 more threads

2019-01-02 14:45:37,111 : INFO : worker thread finished; awaiting finish of 4 more threads

2019-01-02 14:45:37,133 : INFO : worker thread finished; awaiting finish of 3 more threads

2019-01-02 14:45:37,135 : INFO : worker thread finished; awaiting finish of 2 more threads

2019-01-02 14:45:37,144 : INFO : worker thread finished; awaiting finish of 1 more threads

2019-01-02 14:45:37,146 : INFO : worker thread finished; awaiting finish of 0 more threads

2019-01-02 14:45:37,147 : INFO : EPOCH - 7 : training on 9227204 raw words (8222757 effective words) took 25.2s, 326553 effective words/s
2019-01-02 14:45:38,171 : INFO : EPOCH 8 - PROGRESS: at 3.36% examples, 271920 words/s, in_qsize 13, out_qsize 2
2019-01-02 14:45:39,193 : INFO : EPOCH 8 - PROGRESS: at 7.82% examples, 314841 words/s, in_qsize 15, out_qsize 0
2019-01-02 14:45:40,204 : INFO : EPOCH 8 - PROGRESS: at 11.62% examples, 312700 words/s, in_qsize 16, out_qsize 0
2019-01-02 14:45:41,285 : INFO : EPOCH 8 - PROGRESS: at 15.73% examples, 312816 words/s, in_qsize 15, out_qsize 0
2019-01-02 14:45:42,408 : INFO : EPOCH 8 - PROGRESS: at 20.27% examples, 317215 words/s, in_qsize 15, out_qsize 0

2019-01-02 14:45:43,414 : INFO : EPOCH 8 - PROGRESS: at 24.83% examples, 326010 words/s, in_qsize 15, out_qsize 0
2019-01-02 14:45:44,423 : INFO : EPOCH 8 - PROGRESS: at 28.39% examples, 321186 words/s, in_qsize 15, out_qsize 1
2019-01-02 14:45:45,465 : INFO : EPOCH 8 - PROGRESS: at 32.73% examples, 323840 words/s, in_qsize 15, out_qsize 0
2019-01-02 14:45:46,465 : INFO : EPOCH 8 - PROGRESS: at 36.51% examples, 322525 words/s, in_qsize 15, out_qsize 0
2019-01-02 14:45:47,521 : INFO : EPOCH 8 - PROGRESS: at 40.62% examples, 322333 words/s, in_qsize 15, out_qsize 0
2019-01-02 14:45:48,579 : INFO : EPOCH 8 - PROGRESS: at 44.62% examples, 321287 words/s, in_qsize 14, out_qsize 3
2019-01-02 14:45:49,631 : INFO : EPOCH 8 - PROGRESS: at 48.84% examples, 322400 words/s, in_qsize 14, out_qsize 2
2019-01-02 14:45:50,622 : INFO : EPOCH 8 - PROGRESS: at 52.95% examples, 323531 words/s, in_qsize 15, out_qsize 0
2019-01-02 14:45:51,659 : INFO : EPOCH 8 - PROGRESS: at 56.62% examples, 321849 words/s, in_qsize 16, out_qsize 6
2019-01-02 14:45:52,692 : INFO : EPOCH 8 - PROGRESS: at 60.96% examples, 323234 words/s, in_qsize 14, out_qsize 1
2019-01-02 14:45:53,703 : INFO : EPOCH 8 - PROGRESS: at 65.06% examples, 323620 words/s, in_qsize 15, out_qsize 0
2019-01-02 14:45:54,817 : INFO : EPOCH 8 - PROGRESS: at 69.50% examples, 324404 words/s, in_qsize 15, out_qsize 0
2019-01-02 14:45:55,793 : INFO : EPOCH 8 - PROGRESS: at 73.29% examples, 323661 words/s, in_qsize 14, out_qsize 3
2019-01-02 14:45:56,861 : INFO : EPOCH 8 - PROGRESS: at 77.53% examples, 323728 words/s, in_qsize 12, out_qsize 3
2019-01-02 14:45:57,951 : INFO : EPOCH 8 - PROGRESS: at 82.10% examples, 324744 words/s, in_qsize 15, out_qsize 0
2019-01-02 14:45:58,985 : INFO : EPOCH 8 - PROGRESS: at 86.31% examples, 325294 words/s, in_qsize 15, out_qsize 0
2019-01-02 14:45:59,992 : INFO : EPOCH 8 - PROGRESS: at 90.32% examples, 325374 words/s, in_qsize 15, out_qsize 1
2019-01-02 14:46:01,018 : INFO : EPOCH 8 - PROGRESS: at 94.47% examples, 325550 words/s, in_qsize 16, out_qsize 0
2019-01-02 14:46:02,025 : INFO : EPOCH 8 - PROGRESS: at 98.47% examples, 325625 words/s, in_qsize 14, out_qsize 1
2019-01-02 14:46:02,178 : INFO : worker thread finished; awaiting finish of 7 more threads
2019-01-02 14:46:02,182 : INFO : worker thread finished; awaiting finish of 6 more threads
2019-01-02 14:46:02,218 : INFO : worker thread finished; awaiting finish of 5 more threads

2019-01-02 14:46:02,243 : INFO : worker thread finished; awaiting finish of 4 more threads
2019-01-02 14:46:02,247 : INFO : worker thread finished; awaiting finish of 3 more threads
2019-01-02 14:46:02,268 : INFO : worker thread finished; awaiting finish of 2 more threads
2019-01-02 14:46:02,270 : INFO : worker thread finished; awaiting finish of 1 more threads
2019-01-02 14:46:02,272 : INFO : worker thread finished; awaiting finish of 0 more threads
2019-01-02 14:46:02,272 : INFO : EPOCH - 8 : training on 9227204 raw words (8223739 effective words) took 25.1s, 327430 effective words/s
2019-01-02 14:46:03,291 : INFO : EPOCH 9 - PROGRESS: at 3.36% examples, 273464 words/s, in_qsize 14, out_qsize 1
2019-01-02 14:46:04,319 : INFO : EPOCH 9 - PROGRESS: at 7.49% examples, 301663 words/s, in_qsize 14, out_qsize 1
2019-01-02 14:46:05,331 : INFO : EPOCH 9 - PROGRESS: at 11.84% examples, 318440 words/s, in_qsize 15, out_qsize 0
2019-01-02 14:46:06,372 : INFO : EPOCH 9 - PROGRESS: at 15.62% examples, 313914 words/s, in_qsize 13, out_qsize 4
2019-01-02 14:46:07,400 : INFO : EPOCH 9 - PROGRESS: at 20.05% examples, 321883 words/s, in_qsize 15, out_qsize 0
2019-01-02 14:46:08,496 : INFO : EPOCH 9 - PROGRESS: at 24.17% examples, 319699 words/s, in_qsize 13, out_qsize 2
2019-01-02 14:46:09,598 : INFO : EPOCH 9 - PROGRESS: at 28.51% examples, 321811 words/s, in_qsize 15, out_qsize 1
2019-01-02 14:46:10,630 : INFO : EPOCH 9 - PROGRESS: at 32.62% examples, 321190 words/s, in_qsize 15, out_qsize 0
2019-01-02 14:46:11,646 : INFO : EPOCH 9 - PROGRESS: at 36.94% examples, 324385 words/s, in_qsize 15, out_qsize 0
2019-01-02 14:46:12,766 : INFO : EPOCH 9 - PROGRESS: at 41.05% examples, 322038 words/s, in_qsize 15, out_qsize 0
2019-01-02 14:46:13,769 : INFO : EPOCH 9 - PROGRESS: at 45.48% examples, 325691 words/s, in_qsize 15, out_qsize 0
2019-01-02 14:46:14,811 : INFO : EPOCH 9 - PROGRESS: at 49.27% examples, 323513 words/s, in_qsize 14, out_qsize 2
2019-01-02 14:46:15,825 : INFO : EPOCH 9 - PROGRESS: at 53.70% examples, 326276 words/s, in_qsize 14, out_qsize 1
2019-01-02 14:46:16,947 : INFO : EPOCH 9 - PROGRESS: at 57.59% examples, 323208 words/s, in_qsize 15, out_qsize 1
2019-01-02 14:46:17,994 : INFO : EPOCH 9 - PROGRESS: at 62.03% examples, 324932 words/s, in_qsize 15, out_qsize 0
2019-01-02 14:46:19,061 : INFO : EPOCH 9 - PROGRESS: at 66.25% examples, 324945 words/s, in_qsize 15, out_qsize 0

2019-01-02 14:46:20,118 : INFO : EPOCH 9 - PROGRESS: at 70.59% examples, 325655 words/s, in_qsize 15, out_qsize 0
2019-01-02 14:46:21,240 : INFO : EPOCH 9 - PROGRESS: at 74.81% examples, 325041 words/s, in_qsize 15, out_qsize 2
2019-01-02 14:46:22,266 : INFO : EPOCH 9 - PROGRESS: at 79.16% examples, 325865 words/s, in_qsize 15, out_qsize 0
2019-01-02 14:46:23,350 : INFO : EPOCH 9 - PROGRESS: at 83.51% examples, 326021 words/s, in_qsize 15, out_qsize 0
2019-01-02 14:46:24,399 : INFO : EPOCH 9 - PROGRESS: at 87.40% examples, 325040 words/s, in_qsize 14, out_qsize 1
2019-01-02 14:46:25,423 : INFO : EPOCH 9 - PROGRESS: at 91.52% examples, 325264 words/s, in_qsize 16, out_qsize 2
2019-01-02 14:46:26,500 : INFO : EPOCH 9 - PROGRESS: at 95.66% examples, 324768 words/s, in_qsize 14, out_qsize 1
2019-01-02 14:46:27,312 : INFO : worker thread finished; awaiting finish of 7 more threads
2019-01-02 14:46:27,323 : INFO : worker thread finished; awaiting finish of 6 more threads
2019-01-02 14:46:27,342 : INFO : worker thread finished; awaiting finish of 5 more threads
2019-01-02 14:46:27,363 : INFO : worker thread finished; awaiting finish of 4 more threads
2019-01-02 14:46:27,393 : INFO : worker thread finished; awaiting finish of 3 more threads
2019-01-02 14:46:27,402 : INFO : worker thread finished; awaiting finish of 2 more threads
2019-01-02 14:46:27,410 : INFO : worker thread finished; awaiting finish of 1 more threads
2019-01-02 14:46:27,412 : INFO : worker thread finished; awaiting finish of 0 more threads
2019-01-02 14:46:27,412 : INFO : EPOCH - 9 : training on 9227204 raw words (8222848 effective words) took 25.1s, 327203 effective words/s
2019-01-02 14:46:28,514 : INFO : EPOCH 10 - PROGRESS: at 3.80% examples, 292620 words/s, in_qsize 16, out_qsize 0
2019-01-02 14:46:29,536 : INFO : EPOCH 10 - PROGRESS: at 7.82% examples, 307154 words/s, in_qsize 14, out_qsize 3
2019-01-02 14:46:30,548 : INFO : EPOCH 10 - PROGRESS: at 12.06% examples, 319109 words/s, in_qsize 16, out_qsize 0
2019-01-02 14:46:31,613 : INFO : EPOCH 10 - PROGRESS: at 16.16% examples, 318693 words/s, in_qsize 16, out_qsize 0
2019-01-02 14:46:32,639 : INFO : EPOCH 10 - PROGRESS: at 20.27% examples, 320853 words/s, in_qsize 15, out_qsize 0
2019-01-02 14:46:33,722 : INFO : EPOCH 10 - PROGRESS: at 24.50% examples, 322815 words/s, in_qsize 15, out_qsize 0

2019-01-02 14:46:34,686 : INFO : EPOCH 10 - PROGRESS: at 28.61% examples, 324895 words/s, in_qsize 12, out_qsize 2
2019-01-02 14:46:35,745 : INFO : EPOCH 10 - PROGRESS: at 32.62% examples, 323180 words/s, in_qsize 15, out_qsize 0
2019-01-02 14:46:36,846 : INFO : EPOCH 10 - PROGRESS: at 36.83% examples, 322271 words/s, in_qsize 16, out_qsize 1
2019-01-02 14:46:37,864 : INFO : EPOCH 10 - PROGRESS: at 40.94% examples, 323259 words/s, in_qsize 15, out_qsize 2
2019-01-02 14:46:39,001 : INFO : EPOCH 10 - PROGRESS: at 45.27% examples, 323704 words/s, in_qsize 15, out_qsize 0
2019-01-02 14:46:39,987 : INFO : EPOCH 10 - PROGRESS: at 49.38% examples, 323969 words/s, in_qsize 15, out_qsize 0
2019-01-02 14:46:40,989 : INFO : EPOCH 10 - PROGRESS: at 53.38% examples, 324360 words/s, in_qsize 16, out_qsize 2
2019-01-02 14:46:42,081 : INFO : EPOCH 10 - PROGRESS: at 57.71% examples, 324528 words/s, in_qsize 14, out_qsize 1
2019-01-02 14:46:43,095 : INFO : EPOCH 10 - PROGRESS: at 62.25% examples, 327402 words/s, in_qsize 16, out_qsize 0
2019-01-02 14:46:44,115 : INFO : EPOCH 10 - PROGRESS: at 66.04% examples, 326073 words/s, in_qsize 15, out_qsize 0
2019-01-02 14:46:45,127 : INFO : EPOCH 10 - PROGRESS: at 70.16% examples, 326564 words/s, in_qsize 15, out_qsize 0
2019-01-02 14:46:46,148 : INFO : EPOCH 10 - PROGRESS: at 74.05% examples, 325852 words/s, in_qsize 16, out_qsize 0
2019-01-02 14:46:47,150 : INFO : EPOCH 10 - PROGRESS: at 78.18% examples, 326463 words/s, in_qsize 15, out_qsize 0
2019-01-02 14:46:48,196 : INFO : EPOCH 10 - PROGRESS: at 81.88% examples, 324617 words/s, in_qsize 12, out_qsize 5
2019-01-02 14:46:49,200 : INFO : EPOCH 10 - PROGRESS: at 86.21% examples, 326008 words/s, in_qsize 14, out_qsize 1
2019-01-02 14:46:50,364 : INFO : EPOCH 10 - PROGRESS: at 90.65% examples, 325389 words/s, in_qsize 15, out_qsize 0
2019-01-02 14:46:51,424 : INFO : EPOCH 10 - PROGRESS: at 95.12% examples, 326220 words/s, in_qsize 16, out_qsize 0
2019-01-02 14:46:52,414 : INFO : worker thread finished; awaiting finish of 7 more threads
2019-01-02 14:46:52,417 : INFO : worker thread finished; awaiting finish of 6 more threads
2019-01-02 14:46:52,427 : INFO : EPOCH 10 - PROGRESS: at 99.45% examples, 327422 words/s, in_qsize 5, out_qsize 1
2019-01-02 14:46:52,428 : INFO : worker thread finished; awaiting finish of 5 more threads
2019-01-02 14:46:52,435 : INFO : worker thread finished; awaiting finish of 4 more threads

2019-01-02 14:46:52,440 : INFO : worker thread finished; awaiting finish of 3 more threads
2019-01-02 14:46:52,467 : INFO : worker thread finished; awaiting finish of 2 more threads
2019-01-02 14:46:52,483 : INFO : worker thread finished; awaiting finish of 1 more threads
2019-01-02 14:46:52,488 : INFO : worker thread finished; awaiting finish of 0 more threads
2019-01-02 14:46:52,488 : INFO : EPOCH - 10 : training on 9227204 raw words (8223304 effective words) took 25.0s, 328400 effective words/s
2019-01-02 14:46:53,514 : INFO : EPOCH 11 - PROGRESS: at 3.69% examples, 297954 words/s, in_qsize 15, out_qsize 0
2019-01-02 14:46:54,545 : INFO : EPOCH 11 - PROGRESS: at 7.49% examples, 300087 words/s, in_qsize 15, out_qsize 2
2019-01-02 14:46:55,588 : INFO : EPOCH 11 - PROGRESS: at 11.84% examples, 314189 words/s, in_qsize 15, out_qsize 0
2019-01-02 14:46:56,628 : INFO : EPOCH 11 - PROGRESS: at 15.95% examples, 317046 words/s, in_qsize 15, out_qsize 0
2019-01-02 14:46:57,645 : INFO : EPOCH 11 - PROGRESS: at 19.94% examples, 318309 words/s, in_qsize 15, out_qsize 0
2019-01-02 14:46:58,663 : INFO : EPOCH 11 - PROGRESS: at 23.96% examples, 319245 words/s, in_qsize 16, out_qsize 0
2019-01-02 14:46:59,664 : INFO : EPOCH 11 - PROGRESS: at 27.96% examples, 320661 words/s, in_qsize 15, out_qsize 0
2019-01-02 14:47:00,678 : INFO : EPOCH 11 - PROGRESS: at 32.19% examples, 323373 words/s, in_qsize 16, out_qsize 1
2019-01-02 14:47:01,710 : INFO : EPOCH 11 - PROGRESS: at 35.97% examples, 320997 words/s, in_qsize 15, out_qsize 0
2019-01-02 14:47:02,715 : INFO : EPOCH 11 - PROGRESS: at 39.97% examples, 321697 words/s, in_qsize 15, out_qsize 0
2019-01-02 14:47:03,857 : INFO : EPOCH 11 - PROGRESS: at 44.40% examples, 323509 words/s, in_qsize 15, out_qsize 0
2019-01-02 14:47:04,839 : INFO : EPOCH 11 - PROGRESS: at 48.40% examples, 322649 words/s, in_qsize 15, out_qsize 0
2019-01-02 14:47:05,852 : INFO : EPOCH 11 - PROGRESS: at 52.51% examples, 323532 words/s, in_qsize 15, out_qsize 0
2019-01-02 14:47:06,895 : INFO : EPOCH 11 - PROGRESS: at 56.51% examples, 322990 words/s, in_qsize 14, out_qsize 1
2019-01-02 14:47:07,911 : INFO : EPOCH 11 - PROGRESS: at 60.52% examples, 323088 words/s, in_qsize 15, out_qsize 0
2019-01-02 14:47:08,935 : INFO : EPOCH 11 - PROGRESS: at 64.62% examples, 323577 words/s, in_qsize 15, out_qsize 0
2019-01-02 14:47:09,936 : INFO : EPOCH 11 - PROGRESS: at 68.85% examples, 324925 words/s, in_qsize 15, out_qsize 0

2019-01-02 14:47:10,943 : INFO : EPOCH 11 - PROGRESS: at 72.97% examples, 325538 words/s, in_qsize 14, out_qsize 1
2019-01-02 14:47:11,958 : INFO : EPOCH 11 - PROGRESS: at 76.55% examples, 323660 words/s, in_qsize 12, out_qsize 3
2019-01-02 14:47:12,991 : INFO : EPOCH 11 - PROGRESS: at 80.68% examples, 323863 words/s, in_qsize 13, out_qsize 4
2019-01-02 14:47:14,006 : INFO : EPOCH 11 - PROGRESS: at 85.23% examples, 325979 words/s, in_qsize 15, out_qsize 0
2019-01-02 14:47:15,055 : INFO : EPOCH 11 - PROGRESS: at 89.02% examples, 324965 words/s, in_qsize 15, out_qsize 0
2019-01-02 14:47:16,127 : INFO : EPOCH 11 - PROGRESS: at 93.26% examples, 324601 words/s, in_qsize 15, out_qsize 0
2019-01-02 14:47:17,190 : INFO : EPOCH 11 - PROGRESS: at 97.61% examples, 325042 words/s, in_qsize 15, out_qsize 0
2019-01-02 14:47:17,585 : INFO : worker thread finished; awaiting finish of 7 more threads
2019-01-02 14:47:17,620 : INFO : worker thread finished; awaiting finish of 6 more threads
2019-01-02 14:47:17,638 : INFO : worker thread finished; awaiting finish of 5 more threads
2019-01-02 14:47:17,641 : INFO : worker thread finished; awaiting finish of 4 more threads
2019-01-02 14:47:17,683 : INFO : worker thread finished; awaiting finish of 3 more threads
2019-01-02 14:47:17,686 : INFO : worker thread finished; awaiting finish of 2 more threads
2019-01-02 14:47:17,693 : INFO : worker thread finished; awaiting finish of 1 more threads
2019-01-02 14:47:17,700 : INFO : worker thread finished; awaiting finish of 0 more threads
2019-01-02 14:47:17,701 : INFO : EPOCH - 11 : training on 9227204 raw words (8223440 effective words) took 25.2s, 326274 effective words/s
2019-01-02 14:47:18,739 : INFO : EPOCH 12 - PROGRESS: at 3.80% examples, 308461 words/s, in_qsize 15, out_qsize 0
2019-01-02 14:47:19,756 : INFO : EPOCH 12 - PROGRESS: at 7.82% examples, 316336 words/s, in_qsize 15, out_qsize 0
2019-01-02 14:47:20,807 : INFO : EPOCH 12 - PROGRESS: at 12.28% examples, 327066 words/s, in_qsize 15, out_qsize 0
2019-01-02 14:47:21,840 : INFO : EPOCH 12 - PROGRESS: at 16.16% examples, 322841 words/s, in_qsize 15, out_qsize 0
2019-01-02 14:47:23,017 : INFO : EPOCH 12 - PROGRESS: at 20.70% examples, 321706 words/s, in_qsize 15, out_qsize 0
2019-01-02 14:47:24,051 : INFO : EPOCH 12 - PROGRESS: at 25.04% examples, 325460 words/s, in_qsize 15, out_qsize 0

2019-01-02 14:47:25,198 : INFO : EPOCH 12 - PROGRESS: at 29.37% examples, 323213 words/s, in_qsize 16, out_qsize 1
2019-01-02 14:47:26,245 : INFO : EPOCH 12 - PROGRESS: at 33.59% examples, 324922 words/s, in_qsize 15, out_qsize 1
2019-01-02 14:47:27,323 : INFO : EPOCH 12 - PROGRESS: at 37.92% examples, 325025 words/s, in_qsize 15, out_qsize 0
2019-01-02 14:47:28,372 : INFO : EPOCH 12 - PROGRESS: at 42.35% examples, 327301 words/s, in_qsize 15, out_qsize 0
2019-01-02 14:47:29,400 : INFO : EPOCH 12 - PROGRESS: at 46.56% examples, 328239 words/s, in_qsize 13, out_qsize 3
2019-01-02 14:47:30,451 : INFO : EPOCH 12 - PROGRESS: at 50.88% examples, 329165 words/s, in_qsize 13, out_qsize 2
2019-01-02 14:47:31,495 : INFO : EPOCH 12 - PROGRESS: at 55.21% examples, 330083 words/s, in_qsize 15, out_qsize 0
2019-01-02 14:47:32,533 : INFO : EPOCH 12 - PROGRESS: at 59.55% examples, 331029 words/s, in_qsize 16, out_qsize 1
2019-01-02 14:47:33,570 : INFO : EPOCH 12 - PROGRESS: at 63.65% examples, 330697 words/s, in_qsize 16, out_qsize 0
2019-01-02 14:47:34,659 : INFO : EPOCH 12 - PROGRESS: at 67.67% examples, 329276 words/s, in_qsize 15, out_qsize 2
2019-01-02 14:47:35,687 : INFO : EPOCH 12 - PROGRESS: at 71.99% examples, 329907 words/s, in_qsize 15, out_qsize 0
2019-01-02 14:47:36,689 : INFO : EPOCH 12 - PROGRESS: at 76.11% examples, 330311 words/s, in_qsize 15, out_qsize 1
2019-01-02 14:47:37,696 : INFO : EPOCH 12 - PROGRESS: at 80.03% examples, 329716 words/s, in_qsize 14, out_qsize 3
2019-01-02 14:47:38,732 : INFO : EPOCH 12 - PROGRESS: at 84.59% examples, 331258 words/s, in_qsize 15, out_qsize 0
2019-01-02 14:47:39,738 : INFO : EPOCH 12 - PROGRESS: at 88.59% examples, 331086 words/s, in_qsize 14, out_qsize 1
2019-01-02 14:47:40,765 : INFO : EPOCH 12 - PROGRESS: at 92.61% examples, 330599 words/s, in_qsize 16, out_qsize 0
2019-01-02 14:47:41,794 : INFO : EPOCH 12 - PROGRESS: at 96.85% examples, 330876 words/s, in_qsize 15, out_qsize 0
2019-01-02 14:47:42,435 : INFO : worker thread finished; awaiting finish of 7 more threads
2019-01-02 14:47:42,437 : INFO : worker thread finished; awaiting finish of 6 more threads
2019-01-02 14:47:42,445 : INFO : worker thread finished; awaiting finish of 5 more threads
2019-01-02 14:47:42,449 : INFO : worker thread finished; awaiting finish of 4 more threads
2019-01-02 14:47:42,452 : INFO : worker thread finished; awaiting finish of 3 more threads

2019-01-02 14:47:42,454 : INFO : worker thread finished; awaiting finish of 2 more threads
2019-01-02 14:47:42,464 : INFO : worker thread finished; awaiting finish of 1 more threads
2019-01-02 14:47:42,476 : INFO : worker thread finished; awaiting finish of 0 more threads
2019-01-02 14:47:42,477 : INFO : EPOCH - 12 : training on 9227204 raw words (8222137 effective words) took 24.7s, 332232 effective words/s
2019-01-02 14:47:43,493 : INFO : EPOCH 13 - PROGRESS: at 3.36% examples, 274377 words/s, in_qsize 15, out_qsize 0
2019-01-02 14:47:44,522 : INFO : EPOCH 13 - PROGRESS: at 7.60% examples, 306140 words/s, in_qsize 15, out_qsize 0
2019-01-02 14:47:45,549 : INFO : EPOCH 13 - PROGRESS: at 11.73% examples, 314053 words/s, in_qsize 14, out_qsize 1
2019-01-02 14:47:46,578 : INFO : EPOCH 13 - PROGRESS: at 15.40% examples, 309696 words/s, in_qsize 13, out_qsize 7
2019-01-02 14:47:47,615 : INFO : EPOCH 13 - PROGRESS: at 19.62% examples, 314287 words/s, in_qsize 15, out_qsize 2
2019-01-02 14:47:48,704 : INFO : EPOCH 13 - PROGRESS: at 23.96% examples, 318025 words/s, in_qsize 15, out_qsize 0
2019-01-02 14:47:49,697 : INFO : EPOCH 13 - PROGRESS: at 28.18% examples, 321177 words/s, in_qsize 15, out_qsize 0
2019-01-02 14:47:50,715 : INFO : EPOCH 13 - PROGRESS: at 32.30% examples, 322610 words/s, in_qsize 15, out_qsize 0
2019-01-02 14:47:51,730 : INFO : EPOCH 13 - PROGRESS: at 36.08% examples, 321258 words/s, in_qsize 15, out_qsize 1
2019-01-02 14:47:52,800 : INFO : EPOCH 13 - PROGRESS: at 40.40% examples, 322147 words/s, in_qsize 15, out_qsize 0
2019-01-02 14:47:53,833 : INFO : EPOCH 13 - PROGRESS: at 44.62% examples, 323426 words/s, in_qsize 15, out_qsize 2
2019-01-02 14:47:54,842 : INFO : EPOCH 13 - PROGRESS: at 48.73% examples, 324398 words/s, in_qsize 14, out_qsize 0
2019-01-02 14:47:55,881 : INFO : EPOCH 13 - PROGRESS: at 52.73% examples, 323869 words/s, in_qsize 15, out_qsize 1
2019-01-02 14:47:56,938 : INFO : EPOCH 13 - PROGRESS: at 56.84% examples, 323599 words/s, in_qsize 15, out_qsize 0
2019-01-02 14:47:57,949 : INFO : EPOCH 13 - PROGRESS: at 60.96% examples, 324347 words/s, in_qsize 15, out_qsize 0
2019-01-02 14:47:59,001 : INFO : EPOCH 13 - PROGRESS: at 64.84% examples, 323110 words/s, in_qsize 15, out_qsize 2
2019-01-02 14:48:00,225 : INFO : EPOCH 13 - PROGRESS: at 69.40% examples, 321913 words/s, in_qsize 15, out_qsize 0
2019-01-02 14:48:01,347 : INFO : EPOCH 13 - PROGRESS: at 73.84% examples, 322126 words/s, in_qsize 15, out_qsize 0

2019-01-02 14:48:02,390 : INFO : EPOCH 13 - PROGRESS: at 77.96% examples, 322642 words/s, in_qsize 15, out_qsize 1
2019-01-02 14:48:03,473 : INFO : EPOCH 13 - PROGRESS: at 81.88% examples, 321427 words/s, in_qsize 15, out_qsize 1
2019-01-02 14:48:04,478 : INFO : EPOCH 13 - PROGRESS: at 85.99% examples, 321626 words/s, in_qsize 15, out_qsize 0
2019-01-02 14:48:05,497 : INFO : EPOCH 13 - PROGRESS: at 89.89% examples, 321315 words/s, in_qsize 15, out_qsize 0
2019-01-02 14:48:06,549 : INFO : EPOCH 13 - PROGRESS: at 94.14% examples, 321679 words/s, in_qsize 16, out_qsize 0
2019-01-02 14:48:07,558 : INFO : EPOCH 13 - PROGRESS: at 98.25% examples, 322236 words/s, in_qsize 16, out_qsize 1
2019-01-02 14:48:07,777 : INFO : worker thread finished; awaiting finish of 7 more threads
2019-01-02 14:48:07,805 : INFO : worker thread finished; awaiting finish of 6 more threads
2019-01-02 14:48:07,811 : INFO : worker thread finished; awaiting finish of 5 more threads
2019-01-02 14:48:07,813 : INFO : worker thread finished; awaiting finish of 4 more threads
2019-01-02 14:48:07,819 : INFO : worker thread finished; awaiting finish of 3 more threads
2019-01-02 14:48:07,831 : INFO : worker thread finished; awaiting finish of 2 more threads
2019-01-02 14:48:07,844 : INFO : worker thread finished; awaiting finish of 1 more threads
2019-01-02 14:48:07,845 : INFO : worker thread finished; awaiting finish of 0 more threads
2019-01-02 14:48:07,845 : INFO : EPOCH - 13 : training on 9227204 raw words (8222411 effective words) took 25.4s, 324233 effective words/s
2019-01-02 14:48:08,913 : INFO : EPOCH 14 - PROGRESS: at 3.69% examples, 286088 words/s, in_qsize 16, out_qsize 1
2019-01-02 14:48:09,925 : INFO : EPOCH 14 - PROGRESS: at 7.82% examples, 309730 words/s, in_qsize 15, out_qsize 0
2019-01-02 14:48:10,940 : INFO : EPOCH 14 - PROGRESS: at 11.84% examples, 314765 words/s, in_qsize 16, out_qsize 0
2019-01-02 14:48:11,986 : INFO : EPOCH 14 - PROGRESS: at 15.73% examples, 312549 words/s, in_qsize 15, out_qsize 0
2019-01-02 14:48:13,006 : INFO : EPOCH 14 - PROGRESS: at 19.94% examples, 318111 words/s, in_qsize 15, out_qsize 0
2019-01-02 14:48:14,055 : INFO : EPOCH 14 - PROGRESS: at 24.39% examples, 323263 words/s, in_qsize 14, out_qsize 1
2019-01-02 14:48:15,078 : INFO : EPOCH 14 - PROGRESS: at 28.29% examples, 321865 words/s, in_qsize 15, out_qsize 0

2019-01-02 14:48:16,102 : INFO : EPOCH 14 - PROGRESS: at 32.30% examples, 321843 words/s, in_qsize 15, out_qsize 0
2019-01-02 14:48:17,104 : INFO : EPOCH 14 - PROGRESS: at 36.40% examples, 323528 words/s, in_qsize 14, out_qsize 1
2019-01-02 14:48:18,148 : INFO : EPOCH 14 - PROGRESS: at 40.73% examples, 325333 words/s, in_qsize 15, out_qsize 0
2019-01-02 14:48:19,159 : INFO : EPOCH 14 - PROGRESS: at 44.73% examples, 325362 words/s, in_qsize 15, out_qsize 0
2019-01-02 14:48:20,218 : INFO : EPOCH 14 - PROGRESS: at 48.95% examples, 325620 words/s, in_qsize 15, out_qsize 0
2019-01-02 14:48:21,245 : INFO : EPOCH 14 - PROGRESS: at 53.05% examples, 325928 words/s, in_qsize 16, out_qsize 0
2019-01-02 14:48:22,260 : INFO : EPOCH 14 - PROGRESS: at 57.06% examples, 325879 words/s, in_qsize 15, out_qsize 0
2019-01-02 14:48:23,303 : INFO : EPOCH 14 - PROGRESS: at 61.28% examples, 326361 words/s, in_qsize 14, out_qsize 1
2019-01-02 14:48:24,304 : INFO : EPOCH 14 - PROGRESS: at 65.17% examples, 326002 words/s, in_qsize 14, out_qsize 1
2019-01-02 14:48:25,378 : INFO : EPOCH 14 - PROGRESS: at 69.40% examples, 325842 words/s, in_qsize 16, out_qsize 0
2019-01-02 14:48:26,409 : INFO : EPOCH 14 - PROGRESS: at 73.83% examples, 327407 words/s, in_qsize 15, out_qsize 0
2019-01-02 14:48:27,428 : INFO : EPOCH 14 - PROGRESS: at 77.96% examples, 327653 words/s, in_qsize 15, out_qsize 0
2019-01-02 14:48:28,499 : INFO : EPOCH 14 - PROGRESS: at 81.88% examples, 326191 words/s, in_qsize 15, out_qsize 0
2019-01-02 14:48:29,523 : INFO : EPOCH 14 - PROGRESS: at 86.42% examples, 328037 words/s, in_qsize 15, out_qsize 1
2019-01-02 14:48:30,543 : INFO : EPOCH 14 - PROGRESS: at 90.44% examples, 327803 words/s, in_qsize 16, out_qsize 0
2019-01-02 14:48:31,558 : INFO : EPOCH 14 - PROGRESS: at 94.69% examples, 328414 words/s, in_qsize 14, out_qsize 1
2019-01-02 14:48:32,580 : INFO : EPOCH 14 - PROGRESS: at 98.79% examples, 328533 words/s, in_qsize 12, out_qsize 0
2019-01-02 14:48:32,717 : INFO : worker thread finished; awaiting finish of 7 more threads
2019-01-02 14:48:32,720 : INFO : worker thread finished; awaiting finish of 6 more threads
2019-01-02 14:48:32,731 : INFO : worker thread finished; awaiting finish of 5 more threads
2019-01-02 14:48:32,740 : INFO : worker thread finished; awaiting finish of 4 more threads
2019-01-02 14:48:32,749 : INFO : worker thread finished; awaiting finish of 3 more threads

2019-01-02 14:48:32,790 : INFO : worker thread finished; awaiting finish of 2 more threads
2019-01-02 14:48:32,793 : INFO : worker thread finished; awaiting finish of 1 more threads
2019-01-02 14:48:32,802 : INFO : worker thread finished; awaiting finish of 0 more threads
2019-01-02 14:48:32,803 : INFO : EPOCH - 14 : training on 9227204 raw words (8222190 effective words) took 24.9s, 329567 effective words/s
2019-01-02 14:48:33,850 : INFO : EPOCH 15 - PROGRESS: at 3.47% examples, 280154 words/s, in_qsize 13, out_qsize 2
2019-01-02 14:48:34,872 : INFO : EPOCH 15 - PROGRESS: at 7.82% examples, 314432 words/s, in_qsize 16, out_qsize 0
2019-01-02 14:48:35,908 : INFO : EPOCH 15 - PROGRESS: at 11.95% examples, 318728 words/s, in_qsize 16, out_qsize 0
2019-01-02 14:48:37,000 : INFO : EPOCH 15 - PROGRESS: at 16.27% examples, 320753 words/s, in_qsize 15, out_qsize 0
2019-01-02 14:48:38,021 : INFO : EPOCH 15 - PROGRESS: at 20.16% examples, 319385 words/s, in_qsize 15, out_qsize 0
2019-01-02 14:48:39,034 : INFO : EPOCH 15 - PROGRESS: at 24.50% examples, 324747 words/s, in_qsize 15, out_qsize 0
2019-01-02 14:48:40,151 : INFO : EPOCH 15 - PROGRESS: at 28.83% examples, 323858 words/s, in_qsize 15, out_qsize 0
2019-01-02 14:48:41,178 : INFO : EPOCH 15 - PROGRESS: at 33.05% examples, 325632 words/s, in_qsize 15, out_qsize 0
2019-01-02 14:48:42,214 : INFO : EPOCH 15 - PROGRESS: at 36.94% examples, 323839 words/s, in_qsize 13, out_qsize 2
2019-01-02 14:48:43,233 : INFO : EPOCH 15 - PROGRESS: at 41.05% examples, 325121 words/s, in_qsize 15, out_qsize 2
2019-01-02 14:48:44,225 : INFO : EPOCH 15 - PROGRESS: at 45.05% examples, 325296 words/s, in_qsize 16, out_qsize 0
2019-01-02 14:48:45,309 : INFO : EPOCH 15 - PROGRESS: at 49.38% examples, 325609 words/s, in_qsize 16, out_qsize 1
2019-01-02 14:48:46,311 : INFO : EPOCH 15 - PROGRESS: at 53.59% examples, 327214 words/s, in_qsize 15, out_qsize 0
2019-01-02 14:48:47,346 : INFO : EPOCH 15 - PROGRESS: at 57.81% examples, 327845 words/s, in_qsize 16, out_qsize 0
2019-01-02 14:48:48,364 : INFO : EPOCH 15 - PROGRESS: at 62.68% examples, 332159 words/s, in_qsize 16, out_qsize 0
2019-01-02 14:48:49,402 : INFO : EPOCH 15 - PROGRESS: at 67.13% examples, 333370 words/s, in_qsize 15, out_qsize 0
2019-01-02 14:48:50,480 : INFO : EPOCH 15 - PROGRESS: at 71.99% examples, 335805 words/s, in_qsize 15, out_qsize 1
2019-01-02 14:48:51,483 : INFO : EPOCH 15 - PROGRESS: at 76.88% examples, 339173 words/s, in_qsize 13, out_qsize 2

2019-01-02 14:48:52,538 : INFO : EPOCH 15 - PROGRESS: at 81.55% examples, 340449 words/s, in_qsize 12, out_qsize 3
2019-01-02 14:48:53,549 : INFO : EPOCH 15 - PROGRESS: at 86.21% examples, 342316 words/s, in_qsize 15, out_qsize 0
2019-01-02 14:48:54,604 : INFO : EPOCH 15 - PROGRESS: at 90.98% examples, 344438 words/s, in_qsize 15, out_qsize 1
2019-01-02 14:48:55,627 : INFO : EPOCH 15 - PROGRESS: at 95.67% examples, 345085 words/s, in_qsize 16, out_qsize 0
2019-01-02 14:48:56,297 : INFO : worker thread finished; awaiting finish of 7 more threads
2019-01-02 14:48:56,299 : INFO : worker thread finished; awaiting finish of 6 more threads
2019-01-02 14:48:56,342 : INFO : worker thread finished; awaiting finish of 5 more threads
2019-01-02 14:48:56,351 : INFO : worker thread finished; awaiting finish of 4 more threads
2019-01-02 14:48:56,365 : INFO : worker thread finished; awaiting finish of 3 more threads
2019-01-02 14:48:56,388 : INFO : worker thread finished; awaiting finish of 2 more threads
2019-01-02 14:48:56,391 : INFO : worker thread finished; awaiting finish of 1 more threads
2019-01-02 14:48:56,397 : INFO : worker thread finished; awaiting finish of 0 more threads
2019-01-02 14:48:56,398 : INFO : EPOCH - 15 : training on 9227204 raw words (8223658 effective words) took 23.6s, 348959 effective words/s
2019-01-02 14:48:57,464 : INFO : EPOCH 16 - PROGRESS: at 4.02% examples, 318241 words/s, in_qsize 15, out_qsize 0
2019-01-02 14:48:58,467 : INFO : EPOCH 16 - PROGRESS: at 8.80% examples, 353981 words/s, in_qsize 15, out_qsize 0
2019-01-02 14:48:59,467 : INFO : EPOCH 16 - PROGRESS: at 13.79% examples, 372313 words/s, in_qsize 14, out_qsize 2
2019-01-02 14:49:00,478 : INFO : EPOCH 16 - PROGRESS: at 18.65% examples, 378276 words/s, in_qsize 15, out_qsize 0

2019-01-02 14:49:01,548 : INFO : EPOCH 16 - PROGRESS: at 23.19% examples, 372292 words/s, in_qsize 14, out_qsize 1
2019-01-02 14:49:02,549 : INFO : EPOCH 16 - PROGRESS: at 28.07% examples, 376966 words/s, in_qsize 15, out_qsize 0
2019-01-02 14:49:03,579 : INFO : EPOCH 16 - PROGRESS: at 32.62% examples, 375021 words/s, in_qsize 14, out_qsize 1
2019-01-02 14:49:04,614 : INFO : EPOCH 16 - PROGRESS: at 37.27% examples, 375261 words/s, in_qsize 15, out_qsize 0
2019-01-02 14:49:05,622 : INFO : EPOCH 16 - PROGRESS: at 41.92% examples, 374956 words/s, in_qsize 15, out_qsize 0

2019-01-02 14:49:06,637 : INFO : EPOCH 16 - PROGRESS: at 46.67% examples, 376106 words/s, in_qsize 15, out_qsize 1
2019-01-02 14:49:07,637 : INFO : EPOCH 16 - PROGRESS: at 51.21% examples, 375948 words/s, in_qsize 15, out_qsize 1
2019-01-02 14:49:08,659 : INFO : EPOCH 16 - PROGRESS: at 55.86% examples, 375855 words/s, in_qsize 15, out_qsize 2
2019-01-02 14:49:09,684 : INFO : EPOCH 16 - PROGRESS: at 60.85% examples, 377727 words/s, in_qsize 14, out_qsize 0
2019-01-02 14:49:10,694 : INFO : EPOCH 16 - PROGRESS: at 65.72% examples, 379070 words/s, in_qsize 15, out_qsize 0
2019-01-02 14:49:11,703 : INFO : EPOCH 16 - PROGRESS: at 69.94% examples, 376813 words/s, in_qsize 15, out_qsize 0
2019-01-02 14:49:12,709 : INFO : EPOCH 16 - PROGRESS: at 74.48% examples, 376472 words/s, in_qsize 15, out_qsize 0
2019-01-02 14:49:13,733 : INFO : EPOCH 16 - PROGRESS: at 79.71% examples, 378915 words/s, in_qsize 16, out_qsize 0
2019-01-02 14:49:14,767 : INFO : EPOCH 16 - PROGRESS: at 84.15% examples, 377477 words/s, in_qsize 15, out_qsize 0
2019-01-02 14:49:15,816 : INFO : EPOCH 16 - PROGRESS: at 89.02% examples, 377701 words/s, in_qsize 15, out_qsize 0
2019-01-02 14:49:16,894 : INFO : EPOCH 16 - PROGRESS: at 93.92% examples, 377391 words/s, in_qsize 15, out_qsize 0
2019-01-02 14:49:17,915 : INFO : EPOCH 16 - PROGRESS: at 99.01% examples, 378945 words/s, in_qsize 10, out_qsize 0
2019-01-02 14:49:17,974 : INFO : worker thread finished; awaiting finish of 7 more threads
2019-01-02 14:49:17,988 : INFO : worker thread finished; awaiting finish of 6 more threads
2019-01-02 14:49:17,990 : INFO : worker thread finished; awaiting finish of 5 more threads
2019-01-02 14:49:18,001 : INFO : worker thread finished; awaiting finish of 4 more threads
2019-01-02 14:49:18,021 : INFO : worker thread finished; awaiting finish of 3 more threads
2019-01-02 14:49:18,023 : INFO : worker thread finished; awaiting finish of 2 more threads
2019-01-02 14:49:18,024 : INFO : worker thread finished; awaiting finish of 1 more threads
2019-01-02 14:49:18,030 : INFO : worker thread finished; awaiting finish of 0 more threads
2019-01-02 14:49:18,031 : INFO : EPOCH - 16 : training on 9227204 raw words (8223288 effective words) took 21.6s, 380655 effective words/s
2019-01-02 14:49:19,122 : INFO : EPOCH 17 - PROGRESS: at 4.34% examples, 330222 words/s, in_qsize 14, out_qsize 1

2019-01-02 14:49:20,129 : INFO : EPOCH 17 - PROGRESS: at 9.12% examples, 358787 words/s, in_qsize 13, out_qsize 2
2019-01-02 14:49:21,192 : INFO : EPOCH 17 - PROGRESS: at 13.68% examples, 356494 words/s, in_qsize 15, out_qsize 0
2019-01-02 14:49:22,281 : INFO : EPOCH 17 - PROGRESS: at 18.76% examples, 363532 words/s, in_qsize 15, out_qsize 0
2019-01-02 14:49:23,289 : INFO : EPOCH 17 - PROGRESS: at 23.63% examples, 370138 words/s, in_qsize 15, out_qsize 2
2019-01-02 14:49:24,300 : INFO : EPOCH 17 - PROGRESS: at 27.75% examples, 364471 words/s, in_qsize 16, out_qsize 1
2019-01-02 14:49:25,338 : INFO : EPOCH 17 - PROGRESS: at 32.84% examples, 370009 words/s, in_qsize 15, out_qsize 0
2019-01-02 14:49:26,394 : INFO : EPOCH 17 - PROGRESS: at 37.37% examples, 367976 words/s, in_qsize 14, out_qsize 1
2019-01-02 14:49:27,430 : INFO : EPOCH 17 - PROGRESS: at 42.24% examples, 370049 words/s, in_qsize 15, out_qsize 0
2019-01-02 14:49:28,431 : INFO : EPOCH 17 - PROGRESS: at 46.89% examples, 371307 words/s, in_qsize 16, out_qsize 0
2019-01-02 14:49:29,434 : INFO : EPOCH 17 - PROGRESS: at 51.54% examples, 372269 words/s, in_qsize 15, out_qsize 1
2019-01-02 14:49:30,483 : INFO : EPOCH 17 - PROGRESS: at 56.29% examples, 372414 words/s, in_qsize 15, out_qsize 0
2019-01-02 14:49:31,490 : INFO : EPOCH 17 - PROGRESS: at 60.74% examples, 371688 words/s, in_qsize 14, out_qsize 1
2019-01-02 14:49:32,505 : INFO : EPOCH 17 - PROGRESS: at 65.61% examples, 373296 words/s, in_qsize 16, out_qsize 0
2019-01-02 14:49:33,586 : INFO : EPOCH 17 - PROGRESS: at 70.80% examples, 375469 words/s, in_qsize 15, out_qsize 0
2019-01-02 14:49:34,597 : INFO : EPOCH 17 - PROGRESS: at 75.57% examples, 375626 words/s, in_qsize 15, out_qsize 0
2019-01-02 14:49:35,608 : INFO : EPOCH 17 - PROGRESS: at 80.35% examples, 376324 words/s, in_qsize 14, out_qsize 0
2019-01-02 14:49:36,625 : INFO : EPOCH 17 - PROGRESS: at 84.80% examples, 375394 words/s, in_qsize 14, out_qsize 2
2019-01-02 14:49:37,692 : INFO : EPOCH 17 - PROGRESS: at 89.89% examples, 376312 words/s, in_qsize 15, out_qsize 0
2019-01-02 14:49:38,792 : INFO : EPOCH 17 - PROGRESS: at 94.91% examples, 376066 words/s, in_qsize 13, out_qsize 2
2019-01-02 14:49:39,659 : INFO : worker thread finished; awaiting finish of 7 more threads
2019-01-02 14:49:39,661 : INFO : worker thread finished; awaiting finish of 6 more threads
2019-01-02 14:49:39,678 : INFO : worker thread finished; awaiting finish of 5 more threads

2019-01-02 14:49:39,692 : INFO : worker thread finished; awaiting finish of 4 more threads
2019-01-02 14:49:39,725 : INFO : worker thread finished; awaiting finish of 3 more threads
2019-01-02 14:49:39,726 : INFO : worker thread finished; awaiting finish of 2 more threads
2019-01-02 14:49:39,727 : INFO : worker thread finished; awaiting finish of 1 more threads
2019-01-02 14:49:39,731 : INFO : worker thread finished; awaiting finish of 0 more threads
2019-01-02 14:49:39,732 : INFO : EPOCH - 17 : training on 9227204 raw words (8222522 effective words) took 21.7s, 379123 effective words/s
2019-01-02 14:49:40,746 : INFO : EPOCH 18 - PROGRESS: at 4.13% examples, 336832 words/s, in_qsize 15, out_qsize 0
2019-01-02 14:49:41,786 : INFO : EPOCH 18 - PROGRESS: at 8.91% examples, 357267 words/s, in_qsize 16, out_qsize 2
2019-01-02 14:49:42,790 : INFO : EPOCH 18 - PROGRESS: at 13.79% examples, 371033 words/s, in_qsize 16, out_qsize 1
2019-01-02 14:49:43,838 : INFO : EPOCH 18 - PROGRESS: at 18.43% examples, 369518 words/s, in_qsize 13, out_qsize 2
2019-01-02 14:49:44,840 : INFO : EPOCH 18 - PROGRESS: at 23.20% examples, 373886 words/s, in_qsize 13, out_qsize 3
2019-01-02 14:49:45,912 : INFO : EPOCH 18 - PROGRESS: at 28.18% examples, 375375 words/s, in_qsize 15, out_qsize 0
2019-01-02 14:49:46,939 : INFO : EPOCH 18 - PROGRESS: at 33.16% examples, 378755 words/s, in_qsize 15, out_qsize 0
2019-01-02 14:49:47,970 : INFO : EPOCH 18 - PROGRESS: at 37.81% examples, 377836 words/s, in_qsize 15, out_qsize 0
2019-01-02 14:49:49,055 : INFO : EPOCH 18 - PROGRESS: at 42.68% examples, 376826 words/s, in_qsize 14, out_qsize 1
2019-01-02 14:49:50,099 : INFO : EPOCH 18 - PROGRESS: at 47.86% examples, 380116 words/s, in_qsize 15, out_qsize 0
2019-01-02 14:49:51,107 : INFO : EPOCH 18 - PROGRESS: at 52.40% examples, 379318 words/s, in_qsize 15, out_qsize 0
2019-01-02 14:49:52,108 : INFO : EPOCH 18 - PROGRESS: at 57.06% examples, 379640 words/s, in_qsize 15, out_qsize 0
2019-01-02 14:49:53,117 : INFO : EPOCH 18 - PROGRESS: at 61.71% examples, 379623 words/s, in_qsize 13, out_qsize 2
2019-01-02 14:49:54,144 : INFO : EPOCH 18 - PROGRESS: at 66.58% examples, 380363 words/s, in_qsize 15, out_qsize 1
2019-01-02 14:49:55,166 : INFO : EPOCH 18 - PROGRESS: at 71.57% examples, 381736 words/s, in_qsize 15, out_qsize 2
2019-01-02 14:49:56,196 : INFO : EPOCH 18 - PROGRESS: at 76.44% examples, 382171 words/s, in_qsize 12, out_qsize 0

2019-01-02 14:49:57,202 : INFO : EPOCH 18 - PROGRESS: at 80.90% examples, 381083 words/s, in_qsize 15, out_qsize 0
2019-01-02 14:49:58,207 : INFO : EPOCH 18 - PROGRESS: at 85.88% examples, 382533 words/s, in_qsize 16, out_qsize 0
2019-01-02 14:49:59,207 : INFO : EPOCH 18 - PROGRESS: at 90.43% examples, 382084 words/s, in_qsize 15, out_qsize 0
2019-01-02 14:50:00,208 : INFO : EPOCH 18 - PROGRESS: at 95.34% examples, 382951 words/s, in_qsize 15, out_qsize 0
2019-01-02 14:50:01,070 : INFO : worker thread finished; awaiting finish of 7 more threads
2019-01-02 14:50:01,077 : INFO : worker thread finished; awaiting finish of 6 more threads
2019-01-02 14:50:01,085 : INFO : worker thread finished; awaiting finish of 5 more threads
2019-01-02 14:50:01,099 : INFO : worker thread finished; awaiting finish of 4 more threads
2019-01-02 14:50:01,104 : INFO : worker thread finished; awaiting finish of 3 more threads
2019-01-02 14:50:01,106 : INFO : worker thread finished; awaiting finish of 2 more threads
2019-01-02 14:50:01,119 : INFO : worker thread finished; awaiting finish of 1 more threads
2019-01-02 14:50:01,122 : INFO : worker thread finished; awaiting finish of 0 more threads
2019-01-02 14:50:01,123 : INFO : EPOCH - 18 : training on 9227204 raw words (8221765 effective words) took 21.4s, 384534 effective words/s
2019-01-02 14:50:02,155 : INFO : EPOCH 19 - PROGRESS: at 4.45% examples, 357306 words/s, in_qsize 15, out_qsize 0
2019-01-02 14:50:03,168 : INFO : EPOCH 19 - PROGRESS: at 8.80% examples, 354636 words/s, in_qsize 15, out_qsize 0
2019-01-02 14:50:04,169 : INFO : EPOCH 19 - PROGRESS: at 13.57% examples, 366848 words/s, in_qsize 15, out_qsize 0
2019-01-02 14:50:05,189 : INFO : EPOCH 19 - PROGRESS: at 18.54% examples, 375443 words/s, in_qsize 15, out_qsize 0
2019-01-02 14:50:06,262 : INFO : EPOCH 19 - PROGRESS: at 23.19% examples, 371636 words/s, in_qsize 15, out_qsize 0
2019-01-02 14:50:07,315 : INFO : EPOCH 19 - PROGRESS: at 28.07% examples, 373217 words/s, in_qsize 15, out_qsize 0
2019-01-02 14:50:08,319 : INFO : EPOCH 19 - PROGRESS: at 32.73% examples, 374320 words/s, in_qsize 16, out_qsize 0
2019-01-02 14:50:09,342 : INFO : EPOCH 19 - PROGRESS: at 37.70% examples, 377529 words/s, in_qsize 15, out_qsize 0
2019-01-02 14:50:10,362 : INFO : EPOCH 19 - PROGRESS: at 42.35% examples, 377301 words/s, in_qsize 15, out_qsize 2

2019-01-02 14:50:11,390 : INFO : EPOCH 19 - PROGRESS: at 47.10% examples, 377717 words/s, in_qsize 14, out_qsize 1
2019-01-02 14:50:12,433 : INFO : EPOCH 19 - PROGRESS: at 51.96% examples, 378331 words/s, in_qsize 15, out_qsize 0
2019-01-02 14:50:13,446 : INFO : EPOCH 19 - PROGRESS: at 57.06% examples, 381248 words/s, in_qsize 15, out_qsize 0
2019-01-02 14:50:14,544 : INFO : EPOCH 19 - PROGRESS: at 61.82% examples, 379285 words/s, in_qsize 16, out_qsize 0
2019-01-02 14:50:15,618 : INFO : EPOCH 19 - PROGRESS: at 66.91% examples, 380304 words/s, in_qsize 15, out_qsize 0
2019-01-02 14:50:16,617 : INFO : EPOCH 19 - PROGRESS: at 71.56% examples, 380262 words/s, in_qsize 15, out_qsize 0
2019-01-02 14:50:17,623 : INFO : EPOCH 19 - PROGRESS: at 76.66% examples, 382443 words/s, in_qsize 15, out_qsize 0
2019-01-02 14:50:18,675 : INFO : EPOCH 19 - PROGRESS: at 81.34% examples, 381885 words/s, in_qsize 15, out_qsize 1
2019-01-02 14:50:19,790 : INFO : EPOCH 19 - PROGRESS: at 86.10% examples, 380387 words/s, in_qsize 16, out_qsize 5
2019-01-02 14:50:20,820 : INFO : EPOCH 19 - PROGRESS: at 91.20% examples, 380930 words/s, in_qsize 10, out_qsize 5
2019-01-02 14:50:21,898 : INFO : EPOCH 19 - PROGRESS: at 96.31% examples, 381316 words/s, in_qsize 15, out_qsize 0
2019-01-02 14:50:22,426 : INFO : worker thread finished; awaiting finish of 7 more threads
2019-01-02 14:50:22,428 : INFO : worker thread finished; awaiting finish of 6 more threads
2019-01-02 14:50:22,452 : INFO : worker thread finished; awaiting finish of 5 more threads
2019-01-02 14:50:22,464 : INFO : worker thread finished; awaiting finish of 4 more threads
2019-01-02 14:50:22,481 : INFO : worker thread finished; awaiting finish of 3 more threads
2019-01-02 14:50:22,492 : INFO : worker thread finished; awaiting finish of 2 more threads
2019-01-02 14:50:22,510 : INFO : worker thread finished; awaiting finish of 1 more threads
2019-01-02 14:50:22,510 : INFO : worker thread finished; awaiting finish of 0 more threads
2019-01-02 14:50:22,511 : INFO : EPOCH - 19 : training on 9227204 raw words (8222154 effective words) took 21.4s, 384598 effective words/s
2019-01-02 14:50:23,577 : INFO : EPOCH 20 - PROGRESS: at 4.24% examples, 329852 words/s, in_qsize 16, out_qsize 2
2019-01-02 14:50:24,646 : INFO : EPOCH 20 - PROGRESS: at 9.23% examples, 361473 words/s, in_qsize 15, out_qsize 0

2019-01-02 14:50:25,621 : INFO : EPOCH 20 - PROGRESS: at 14.11% examples, 373844 words/s, in_qsize 15, out_qsize 0
2019-01-02 14:50:26,660 : INFO : EPOCH 20 - PROGRESS: at 18.76% examples, 372493 words/s, in_qsize 16, out_qsize 0
2019-01-02 14:50:27,694 : INFO : EPOCH 20 - PROGRESS: at 23.42% examples, 372083 words/s, in_qsize 15, out_qsize 0
2019-01-02 14:50:28,697 : INFO : EPOCH 20 - PROGRESS: at 28.29% examples, 376606 words/s, in_qsize 15, out_qsize 0
2019-01-02 14:50:29,722 : INFO : EPOCH 20 - PROGRESS: at 33.05% examples, 377464 words/s, in_qsize 16, out_qsize 2
2019-01-02 14:50:30,781 : INFO : EPOCH 20 - PROGRESS: at 38.24% examples, 380840 words/s, in_qsize 15, out_qsize 0
2019-01-02 14:50:31,784 : INFO : EPOCH 20 - PROGRESS: at 43.10% examples, 382881 words/s, in_qsize 13, out_qsize 1
2019-01-02 14:50:32,850 : INFO : EPOCH 20 - PROGRESS: at 47.86% examples, 381305 words/s, in_qsize 15, out_qsize 0
2019-01-02 14:50:33,857 : INFO : EPOCH 20 - PROGRESS: at 53.05% examples, 385182 words/s, in_qsize 16, out_qsize 0
2019-01-02 14:50:34,858 : INFO : EPOCH 20 - PROGRESS: at 57.38% examples, 382823 words/s, in_qsize 15, out_qsize 0
2019-01-02 14:50:35,904 : INFO : EPOCH 20 - PROGRESS: at 62.68% examples, 385491 words/s, in_qsize 16, out_qsize 0
2019-01-02 14:50:37,034 : INFO : EPOCH 20 - PROGRESS: at 67.55% examples, 383092 words/s, in_qsize 13, out_qsize 2
2019-01-02 14:50:38,063 : INFO : EPOCH 20 - PROGRESS: at 72.75% examples, 385217 words/s, in_qsize 16, out_qsize 0
2019-01-02 14:50:39,074 : INFO : EPOCH 20 - PROGRESS: at 77.42% examples, 384826 words/s, in_qsize 15, out_qsize 0
2019-01-02 14:50:40,099 : INFO : EPOCH 20 - PROGRESS: at 82.10% examples, 384182 words/s, in_qsize 15, out_qsize 0
2019-01-02 14:50:41,213 : INFO : EPOCH 20 - PROGRESS: at 87.40% examples, 384621 words/s, in_qsize 15, out_qsize 0
2019-01-02 14:50:42,250 : INFO : EPOCH 20 - PROGRESS: at 92.07% examples, 384182 words/s, in_qsize 14, out_qsize 3
2019-01-02 14:50:43,338 : INFO : EPOCH 20 - PROGRESS: at 97.18% examples, 384222 words/s, in_qsize 15, out_qsize 2
2019-01-02 14:50:43,731 : INFO : worker thread finished; awaiting finish of 7 more threads
2019-01-02 14:50:43,734 : INFO : worker thread finished; awaiting finish of 6 more threads
2019-01-02 14:50:43,736 : INFO : worker thread finished; awaiting finish of 5 more threads
2019-01-02 14:50:43,749 : INFO : worker thread finished; awaiting finish of 4 more threads

2019-01-02 14:50:43,754 : INFO : worker thread finished; awaiting finish of 3 more threads
2019-01-02 14:50:43,762 : INFO : worker thread finished; awaiting finish of 2 more threads
2019-01-02 14:50:43,769 : INFO : worker thread finished; awaiting finish of 1 more threads
2019-01-02 14:50:43,770 : INFO : worker thread finished; awaiting finish of 0 more threads
2019-01-02 14:50:43,771 : INFO : EPOCH - 20 : training on 9227204 raw words (8221658 effective words) took 21.2s, 386972 effective words/s
2019-01-02 14:50:44,812 : INFO : EPOCH 21 - PROGRESS: at 4.34% examples, 344994 words/s, in_qsize 14, out_qsize 1
2019-01-02 14:50:45,834 : INFO : EPOCH 21 - PROGRESS: at 9.12% examples, 364228 words/s, in_qsize 14, out_qsize 1
2019-01-02 14:50:46,871 : INFO : EPOCH 21 - PROGRESS: at 14.00% examples, 371755 words/s, in_qsize 13, out_qsize 2
2019-01-02 14:50:47,907 : INFO : EPOCH 21 - PROGRESS: at 18.97% examples, 377599 words/s, in_qsize 16, out_qsize 1
2019-01-02 14:50:48,986 : INFO : EPOCH 21 - PROGRESS: at 23.85% examples, 376441 words/s, in_qsize 15, out_qsize 0
2019-01-02 14:50:49,994 : INFO : EPOCH 21 - PROGRESS: at 28.83% examples, 381345 words/s, in_qsize 15, out_qsize 0
2019-01-02 14:50:51,027 : INFO : EPOCH 21 - PROGRESS: at 33.48% examples, 379819 words/s, in_qsize 15, out_qsize 0
2019-01-02 14:50:52,058 : INFO : EPOCH 21 - PROGRESS: at 38.35% examples, 380966 words/s, in_qsize 15, out_qsize 0
2019-01-02 14:50:53,059 : INFO : EPOCH 21 - PROGRESS: at 43.00% examples, 381140 words/s, in_qsize 15, out_qsize 0
2019-01-02 14:50:54,139 : INFO : EPOCH 21 - PROGRESS: at 47.97% examples, 381000 words/s, in_qsize 15, out_qsize 0
2019-01-02 14:50:55,190 : INFO : EPOCH 21 - PROGRESS: at 52.84% examples, 381042 words/s, in_qsize 15, out_qsize 0
2019-01-02 14:50:56,233 : INFO : EPOCH 21 - PROGRESS: at 57.71% examples, 381354 words/s, in_qsize 15, out_qsize 0
2019-01-02 14:50:57,249 : INFO : EPOCH 21 - PROGRESS: at 62.46% examples, 381674 words/s, in_qsize 15, out_qsize 0
2019-01-02 14:50:58,294 : INFO : EPOCH 21 - PROGRESS: at 67.45% examples, 382426 words/s, in_qsize 15, out_qsize 0
2019-01-02 14:50:59,364 : INFO : EPOCH 21 - PROGRESS: at 72.21% examples, 381334 words/s, in_qsize 12, out_qsize 3
2019-01-02 14:51:00,366 : INFO : EPOCH 21 - PROGRESS: at 77.20% examples, 382976 words/s, in_qsize 15, out_qsize 0
2019-01-02 14:51:01,417 : INFO : EPOCH 21 - PROGRESS: at 82.21% examples, 383384 words/s, in_qsize 15, out_qsize 0

2019-01-02 14:51:02,528 : INFO : EPOCH 21 - PROGRESS: at 87.40% examples, 383477 words/s, in_qsize 15, out_qsize 0
2019-01-02 14:51:03,535 : INFO : EPOCH 21 - PROGRESS: at 92.17% examples, 383740 words/s, in_qsize 15, out_qsize 0
2019-01-02 14:51:04,539 : INFO : EPOCH 21 - PROGRESS: at 96.96% examples, 384062 words/s, in_qsize 14, out_qsize 0
2019-01-02 14:51:05,020 : INFO : worker thread finished; awaiting finish of 7 more threads
2019-01-02 14:51:05,041 : INFO : worker thread finished; awaiting finish of 6 more threads
2019-01-02 14:51:05,078 : INFO : worker thread finished; awaiting finish of 5 more threads
2019-01-02 14:51:05,082 : INFO : worker thread finished; awaiting finish of 4 more threads
2019-01-02 14:51:05,092 : INFO : worker thread finished; awaiting finish of 3 more threads
2019-01-02 14:51:05,107 : INFO : worker thread finished; awaiting finish of 2 more threads
2019-01-02 14:51:05,116 : INFO : worker thread finished; awaiting finish of 1 more threads
2019-01-02 14:51:05,122 : INFO : worker thread finished; awaiting finish of 0 more threads
2019-01-02 14:51:05,122 : INFO : EPOCH - 21 : training on 9227204 raw words (8223176 effective words) took 21.3s, 385301 effective words/s
2019-01-02 14:51:06,166 : INFO : EPOCH 22 - PROGRESS: at 4.45% examples, 352801 words/s, in_qsize 15, out_qsize 0
2019-01-02 14:51:07,193 : INFO : EPOCH 22 - PROGRESS: at 8.90% examples, 354471 words/s, in_qsize 15, out_qsize 4
2019-01-02 14:51:08,200 : INFO : EPOCH 22 - PROGRESS: at 13.79% examples, 368613 words/s, in_qsize 13, out_qsize 0
2019-01-02 14:51:09,205 : INFO : EPOCH 22 - PROGRESS: at 18.22% examples, 367297 words/s, in_qsize 15, out_qsize 1
2019-01-02 14:51:10,275 : INFO : EPOCH 22 - PROGRESS: at 22.65% examples, 364792 words/s, in_qsize 16, out_qsize 2
2019-01-02 14:51:11,250 : INFO : EPOCH 22 - PROGRESS: at 27.20% examples, 365469 words/s, in_qsize 16, out_qsize 0
2019-01-02 14:51:12,252 : INFO : EPOCH 22 - PROGRESS: at 31.65% examples, 365390 words/s, in_qsize 15, out_qsize 1
2019-01-02 14:51:13,265 : INFO : EPOCH 22 - PROGRESS: at 36.51% examples, 369129 words/s, in_qsize 16, out_qsize 0
2019-01-02 14:51:14,279 : INFO : EPOCH 22 - PROGRESS: at 41.26% examples, 371065 words/s, in_qsize 16, out_qsize 0
2019-01-02 14:51:15,296 : INFO : EPOCH 22 - PROGRESS: at 46.13% examples, 373395 words/s, in_qsize 16, out_qsize 1

2019-01-02 14:51:16,399 : INFO : EPOCH 22 - PROGRESS: at 50.99% examples, 372466 words/s, in_qsize 14, out_qsize 1
2019-01-02 14:51:17,447 : INFO : EPOCH 22 - PROGRESS: at 55.86% examples, 373341 words/s, in_qsize 15, out_qsize 0
2019-01-02 14:51:18,492 : INFO : EPOCH 22 - PROGRESS: at 61.07% examples, 376174 words/s, in_qsize 15, out_qsize 1
2019-01-02 14:51:19,550 : INFO : EPOCH 22 - PROGRESS: at 65.93% examples, 376353 words/s, in_qsize 13, out_qsize 2
2019-01-02 14:51:20,552 : INFO : EPOCH 22 - PROGRESS: at 70.91% examples, 378446 words/s, in_qsize 15, out_qsize 0
2019-01-02 14:51:21,578 : INFO : EPOCH 22 - PROGRESS: at 75.89% examples, 379744 words/s, in_qsize 14, out_qsize 1
2019-01-02 14:51:22,590 : INFO : EPOCH 22 - PROGRESS: at 80.57% examples, 379660 words/s, in_qsize 16, out_qsize 0
2019-01-02 14:51:23,629 : INFO : EPOCH 22 - PROGRESS: at 85.45% examples, 380004 words/s, in_qsize 15, out_qsize 0
2019-01-02 14:51:24,682 : INFO : EPOCH 22 - PROGRESS: at 90.54% examples, 380934 words/s, in_qsize 15, out_qsize 0
2019-01-02 14:51:25,686 : INFO : EPOCH 22 - PROGRESS: at 95.45% examples, 381821 words/s, in_qsize 15, out_qsize 0
2019-01-02 14:51:26,408 : INFO : worker thread finished; awaiting finish of 7 more threads
2019-01-02 14:51:26,434 : INFO : worker thread finished; awaiting finish of 6 more threads
2019-01-02 14:51:26,450 : INFO : worker thread finished; awaiting finish of 5 more threads
2019-01-02 14:51:26,483 : INFO : worker thread finished; awaiting finish of 4 more threads
2019-01-02 14:51:26,485 : INFO : worker thread finished; awaiting finish of 3 more threads
2019-01-02 14:51:26,495 : INFO : worker thread finished; awaiting finish of 2 more threads
2019-01-02 14:51:26,505 : INFO : worker thread finished; awaiting finish of 1 more threads
2019-01-02 14:51:26,509 : INFO : worker thread finished; awaiting finish of 0 more threads
2019-01-02 14:51:26,510 : INFO : EPOCH - 22 : training on 9227204 raw words (8223043 effective words) took 21.4s, 384645 effective words/s
2019-01-02 14:51:27,566 : INFO : EPOCH 23 - PROGRESS: at 4.45% examples, 350211 words/s, in_qsize 15, out_qsize 0
2019-01-02 14:51:28,647 : INFO : EPOCH 23 - PROGRESS: at 9.66% examples, 373546 words/s, in_qsize 15, out_qsize 0
2019-01-02 14:51:29,684 : INFO : EPOCH 23 - PROGRESS: at 14.65% examples, 380604 words/s, in_qsize 14, out_qsize 1

2019-01-02 14:51:30,711 : INFO : EPOCH 23 - PROGRESS: at 19.40% examples, 381656 words/s, in_qsize 13, out_qsize 5
2019-01-02 14:51:31,704 : INFO : EPOCH 23 - PROGRESS: at 24.72% examples, 392097 words/s, in_qsize 14, out_qsize 0
2019-01-02 14:51:32,750 : INFO : EPOCH 23 - PROGRESS: at 29.37% examples, 387732 words/s, in_qsize 16, out_qsize 0
2019-01-02 14:51:33,802 : INFO : EPOCH 23 - PROGRESS: at 34.68% examples, 391610 words/s, in_qsize 15, out_qsize 0
2019-01-02 14:51:34,862 : INFO : EPOCH 23 - PROGRESS: at 39.54% examples, 389937 words/s, in_qsize 15, out_qsize 0
2019-01-02 14:51:35,897 : INFO : EPOCH 23 - PROGRESS: at 44.62% examples, 391533 words/s, in_qsize 16, out_qsize 2
2019-01-02 14:51:36,929 : INFO : EPOCH 23 - PROGRESS: at 49.38% examples, 390441 words/s, in_qsize 15, out_qsize 0
2019-01-02 14:51:38,058 : INFO : EPOCH 23 - PROGRESS: at 54.67% examples, 390752 words/s, in_qsize 15, out_qsize 2
2019-01-02 14:51:39,093 : INFO : EPOCH 23 - PROGRESS: at 59.87% examples, 391979 words/s, in_qsize 14, out_qsize 1
2019-01-02 14:51:40,144 : INFO : EPOCH 23 - PROGRESS: at 64.84% examples, 391812 words/s, in_qsize 13, out_qsize 2
2019-01-02 14:51:41,225 : INFO : EPOCH 23 - PROGRESS: at 69.94% examples, 391545 words/s, in_qsize 14, out_qsize 1
2019-01-02 14:51:42,227 : INFO : EPOCH 23 - PROGRESS: at 75.14% examples, 393755 words/s, in_qsize 15, out_qsize 0
2019-01-02 14:51:43,313 : INFO : EPOCH 23 - PROGRESS: at 80.03% examples, 392153 words/s, in_qsize 16, out_qsize 0
2019-01-02 14:51:44,410 : INFO : EPOCH 23 - PROGRESS: at 85.34% examples, 392488 words/s, in_qsize 15, out_qsize 0
2019-01-02 14:51:45,545 : INFO : EPOCH 23 - PROGRESS: at 90.76% examples, 392462 words/s, in_qsize 15, out_qsize 1
2019-01-02 14:51:46,560 : INFO : EPOCH 23 - PROGRESS: at 95.88% examples, 393468 words/s, in_qsize 15, out_qsize 0
2019-01-02 14:51:47,184 : INFO : worker thread finished; awaiting finish of 7 more threads
2019-01-02 14:51:47,203 : INFO : worker thread finished; awaiting finish of 6 more threads
2019-01-02 14:51:47,226 : INFO : worker thread finished; awaiting finish of 5 more threads
2019-01-02 14:51:47,235 : INFO : worker thread finished; awaiting finish of 4 more threads
2019-01-02 14:51:47,240 : INFO : worker thread finished; awaiting finish of 3 more threads
2019-01-02 14:51:47,274 : INFO : worker thread finished; awaiting finish of 2 more threads

2019-01-02 14:51:47,284 : INFO : worker thread finished; awaiting finish of 1 more threads
2019-01-02 14:51:47,284 : INFO : worker thread finished; awaiting finish of 0 more threads
2019-01-02 14:51:47,285 : INFO : EPOCH - 23 : training on 9227204 raw words (8223543 effective words) took 20.8s, 396093 effective words/s
2019-01-02 14:51:48,296 : INFO : EPOCH 24 - PROGRESS: at 4.45% examples, 364637 words/s, in_qsize 16, out_qsize 0
2019-01-02 14:51:49,333 : INFO : EPOCH 24 - PROGRESS: at 9.12% examples, 367097 words/s, in_qsize 13, out_qsize 2
2019-01-02 14:51:50,336 : INFO : EPOCH 24 - PROGRESS: at 14.33% examples, 386561 words/s, in_qsize 15, out_qsize 0
2019-01-02 14:51:51,376 : INFO : EPOCH 24 - PROGRESS: at 19.19% examples, 386294 words/s, in_qsize 15, out_qsize 0
2019-01-02 14:51:52,447 : INFO : EPOCH 24 - PROGRESS: at 24.28% examples, 387293 words/s, in_qsize 14, out_qsize 1
2019-01-02 14:51:53,477 : INFO : EPOCH 24 - PROGRESS: at 29.48% examples, 391956 words/s, in_qsize 15, out_qsize 0
2019-01-02 14:51:54,499 : INFO : EPOCH 24 - PROGRESS: at 34.57% examples, 394477 words/s, in_qsize 16, out_qsize 1
2019-01-02 14:51:55,600 : INFO : EPOCH 24 - PROGRESS: at 39.65% examples, 392560 words/s, in_qsize 16, out_qsize 2
2019-01-02 14:51:56,612 : INFO : EPOCH 24 - PROGRESS: at 44.83% examples, 395841 words/s, in_qsize 14, out_qsize 0
2019-01-02 14:51:57,618 : INFO : EPOCH 24 - PROGRESS: at 49.27% examples, 392691 words/s, in_qsize 14, out_qsize 1
2019-01-02 14:51:58,735 : INFO : EPOCH 24 - PROGRESS: at 54.67% examples, 393286 words/s, in_qsize 14, out_qsize 1
2019-01-02 14:51:59,741 : INFO : EPOCH 24 - PROGRESS: at 59.77% examples, 395138 words/s, in_qsize 16, out_qsize 1
2019-01-02 14:52:00,766 : INFO : EPOCH 24 - PROGRESS: at 64.40% examples, 393510 words/s, in_qsize 15, out_qsize 0
2019-01-02 14:52:01,838 : INFO : EPOCH 24 - PROGRESS: at 69.61% examples, 393928 words/s, in_qsize 15, out_qsize 0
2019-01-02 14:52:02,862 : INFO : EPOCH 24 - PROGRESS: at 74.37% examples, 393187 words/s, in_qsize 15, out_qsize 0
2019-01-02 14:52:03,876 : INFO : EPOCH 24 - PROGRESS: at 79.38% examples, 393832 words/s, in_qsize 15, out_qsize 0
2019-01-02 14:52:04,882 : INFO : EPOCH 24 - PROGRESS: at 83.94% examples, 392583 words/s, in_qsize 15, out_qsize 0
2019-01-02 14:52:05,908 : INFO : EPOCH 24 - PROGRESS: at 89.13% examples, 393917 words/s, in_qsize 15, out_qsize 0
2019-01-02 14:52:07,002 : INFO : EPOCH 24 - PROGRESS: at 93.92% examples, 391884 words/s, in_qsize 16, out_qsize 0

2019-01-02 14:52:08,026 : INFO : EPOCH 24 - PROGRESS: at 99.12% examples, 393152 words/s, in_qsize 7, out_qsize 3
2019-01-02 14:52:08,032 : INFO : worker thread finished; awaiting finish of 7 more threads
2019-01-02 14:52:08,041 : INFO : worker thread finished; awaiting finish of 6 more threads
2019-01-02 14:52:08,049 : INFO : worker thread finished; awaiting finish of 5 more threads
2019-01-02 14:52:08,078 : INFO : worker thread finished; awaiting finish of 4 more threads
2019-01-02 14:52:08,084 : INFO : worker thread finished; awaiting finish of 3 more threads
2019-01-02 14:52:08,090 : INFO : worker thread finished; awaiting finish of 2 more threads
2019-01-02 14:52:08,097 : INFO : worker thread finished; awaiting finish of 1 more threads
2019-01-02 14:52:08,100 : INFO : worker thread finished; awaiting finish of 0 more threads
2019-01-02 14:52:08,101 : INFO : EPOCH - 24 : training on 9227204 raw words (8223029 effective words) took 20.8s, 395216 effective words/s
2019-01-02 14:52:09,113 : INFO : EPOCH 25 - PROGRESS: at 4.34% examples, 355374 words/s, in_qsize 15, out_qsize 0
2019-01-02 14:52:10,133 : INFO : EPOCH 25 - PROGRESS: at 9.01% examples, 365640 words/s, in_qsize 14, out_qsize 1
2019-01-02 14:52:11,264 : INFO : EPOCH 25 - PROGRESS: at 14.44% examples, 375607 words/s, in_qsize 15, out_qsize 0
2019-01-02 14:52:12,270 : INFO : EPOCH 25 - PROGRESS: at 19.51% examples, 385367 words/s, in_qsize 15, out_qsize 0
2019-01-02 14:52:13,352 : INFO : EPOCH 25 - PROGRESS: at 24.29% examples, 380600 words/s, in_qsize 15, out_qsize 0
2019-01-02 14:52:14,385 : INFO : EPOCH 25 - PROGRESS: at 29.70% examples, 388901 words/s, in_qsize 15, out_qsize 0
2019-01-02 14:52:15,405 : INFO : EPOCH 25 - PROGRESS: at 34.24% examples, 385819 words/s, in_qsize 15, out_qsize 0
2019-01-02 14:52:16,421 : INFO : EPOCH 25 - PROGRESS: at 39.11% examples, 386898 words/s, in_qsize 15, out_qsize 0
2019-01-02 14:52:17,423 : INFO : EPOCH 25 - PROGRESS: at 43.86% examples, 387318 words/s, in_qsize 15, out_qsize 0
2019-01-02 14:52:18,532 : INFO : EPOCH 25 - PROGRESS: at 48.95% examples, 386305 words/s, in_qsize 15, out_qsize 0
2019-01-02 14:52:19,539 : INFO : EPOCH 25 - PROGRESS: at 53.81% examples, 387355 words/s, in_qsize 16, out_qsize 0
2019-01-02 14:52:20,611 : INFO : EPOCH 25 - PROGRESS: at 58.47% examples, 384821 words/s, in_qsize 15, out_qsize 0

2019-01-02 14:52:21,626 : INFO : EPOCH 25 - PROGRESS: at 63.54% examples, 386897 words/s, in_qsize 16, out_qsize 0
2019-01-02 14:52:22,686 : INFO : EPOCH 25 - PROGRESS: at 68.43% examples, 386244 words/s, in_qsize 15, out_qsize 0
2019-01-02 14:52:23,702 : INFO : EPOCH 25 - PROGRESS: at 73.30% examples, 386786 words/s, in_qsize 14, out_qsize 1
2019-01-02 14:52:24,717 : INFO : EPOCH 25 - PROGRESS: at 78.18% examples, 387263 words/s, in_qsize 15, out_qsize 0
2019-01-02 14:52:25,769 : INFO : EPOCH 25 - PROGRESS: at 82.96% examples, 386374 words/s, in_qsize 11, out_qsize 4
2019-01-02 14:52:26,787 : INFO : EPOCH 25 - PROGRESS: at 88.37% examples, 389165 words/s, in_qsize 16, out_qsize 0
2019-01-02 14:52:27,842 : INFO : EPOCH 25 - PROGRESS: at 93.16% examples, 388179 words/s, in_qsize 14, out_qsize 1
2019-01-02 14:52:28,854 : INFO : EPOCH 25 - PROGRESS: at 98.25% examples, 389440 words/s, in_qsize 15, out_qsize 0
2019-01-02 14:52:29,062 : INFO : worker thread finished; awaiting finish of 7 more threads
2019-01-02 14:52:29,063 : INFO : worker thread finished; awaiting finish of 6 more threads
2019-01-02 14:52:29,064 : INFO : worker thread finished; awaiting finish of 5 more threads
2019-01-02 14:52:29,066 : INFO : worker thread finished; awaiting finish of 4 more threads
2019-01-02 14:52:29,077 : INFO : worker thread finished; awaiting finish of 3 more threads
2019-01-02 14:52:29,093 : INFO : worker thread finished; awaiting finish of 2 more threads
2019-01-02 14:52:29,102 : INFO : worker thread finished; awaiting finish of 1 more threads
2019-01-02 14:52:29,111 : INFO : worker thread finished; awaiting finish of 0 more threads
2019-01-02 14:52:29,111 : INFO : EPOCH - 25 : training on 9227204 raw words (8221987 effective words) took 21.0s, 391500 effective words/s
2019-01-02 14:52:30,157 : INFO : EPOCH 26 - PROGRESS: at 4.45% examples, 352237 words/s, in_qsize 15, out_qsize 0
2019-01-02 14:52:31,176 : INFO : EPOCH 26 - PROGRESS: at 9.44% examples, 379281 words/s, in_qsize 14, out_qsize 2
2019-01-02 14:52:32,182 : INFO : EPOCH 26 - PROGRESS: at 14.65% examples, 392795 words/s, in_qsize 14, out_qsize 1
2019-01-02 14:52:33,192 : INFO : EPOCH 26 - PROGRESS: at 19.51% examples, 393767 words/s, in_qsize 14, out_qsize 1
2019-01-02 14:52:34,198 : INFO : EPOCH 26 - PROGRESS: at 24.50% examples, 396554 words/s, in_qsize 15, out_qsize 0

2019-01-02 14:52:35,226 : INFO : EPOCH 26 - PROGRESS: at 28.83% examples, 388152 words/s, in_qsize 15, out_qsize 0
2019-01-02 14:52:36,234 : INFO : EPOCH 26 - PROGRESS: at 33.38% examples, 385732 words/s, in_qsize 16, out_qsize 1
2019-01-02 14:52:37,315 : INFO : EPOCH 26 - PROGRESS: at 38.14% examples, 382696 words/s, in_qsize 15, out_qsize 0
2019-01-02 14:52:38,323 : INFO : EPOCH 26 - PROGRESS: at 42.46% examples, 379465 words/s, in_qsize 14, out_qsize 1
2019-01-02 14:52:39,359 : INFO : EPOCH 26 - PROGRESS: at 47.11% examples, 378501 words/s, in_qsize 13, out_qsize 2
2019-01-02 14:52:40,392 : INFO : EPOCH 26 - PROGRESS: at 51.64% examples, 377460 words/s, in_qsize 15, out_qsize 1
2019-01-02 14:52:41,383 : INFO : EPOCH 26 - PROGRESS: at 56.40% examples, 378526 words/s, in_qsize 11, out_qsize 3
2019-01-02 14:52:42,433 : INFO : EPOCH 26 - PROGRESS: at 60.96% examples, 376799 words/s, in_qsize 15, out_qsize 0
2019-01-02 14:52:43,435 : INFO : EPOCH 26 - PROGRESS: at 65.50% examples, 376534 words/s, in_qsize 16, out_qsize 1
2019-01-02 14:52:44,439 : INFO : EPOCH 26 - PROGRESS: at 69.94% examples, 375679 words/s, in_qsize 14, out_qsize 1
2019-01-02 14:52:45,468 : INFO : EPOCH 26 - PROGRESS: at 74.92% examples, 377100 words/s, in_qsize 15, out_qsize 0
2019-01-02 14:52:46,491 : INFO : EPOCH 26 - PROGRESS: at 80.03% examples, 378975 words/s, in_qsize 15, out_qsize 0
2019-01-02 14:52:47,543 : INFO : EPOCH 26 - PROGRESS: at 84.80% examples, 378619 words/s, in_qsize 15, out_qsize 1
2019-01-02 14:52:48,565 : INFO : EPOCH 26 - PROGRESS: at 89.67% examples, 379321 words/s, in_qsize 16, out_qsize 0
2019-01-02 14:52:49,640 : INFO : EPOCH 26 - PROGRESS: at 95.12% examples, 381139 words/s, in_qsize 15, out_qsize 0
2019-01-02 14:52:50,465 : INFO : worker thread finished; awaiting finish of 7 more threads
2019-01-02 14:52:50,490 : INFO : worker thread finished; awaiting finish of 6 more threads
2019-01-02 14:52:50,491 : INFO : worker thread finished; awaiting finish of 5 more threads
2019-01-02 14:52:50,529 : INFO : worker thread finished; awaiting finish of 4 more threads
2019-01-02 14:52:50,545 : INFO : worker thread finished; awaiting finish of 3 more threads
2019-01-02 14:52:50,546 : INFO : worker thread finished; awaiting finish of 2 more threads
2019-01-02 14:52:50,558 : INFO : worker thread finished; awaiting finish of 1 more threads

2019-01-02 14:52:50,559 : INFO : worker thread finished; awaiting finish of 0 more threads
2019-01-02 14:52:50,560 : INFO : EPOCH - 26 : training on 9227204 raw words (8222755 effective words) took 21.4s, 383543 effective words/s
2019-01-02 14:52:51,584 : INFO : EPOCH 27 - PROGRESS: at 4.23% examples, 343526 words/s, in_qsize 14, out_qsize 1
2019-01-02 14:52:52,599 : INFO : EPOCH 27 - PROGRESS: at 9.45% examples, 382590 words/s, in_qsize 15, out_qsize 0
2019-01-02 14:52:53,602 : INFO : EPOCH 27 - PROGRESS: at 14.43% examples, 391068 words/s, in_qsize 16, out_qsize 0
2019-01-02 14:52:54,609 : INFO : EPOCH 27 - PROGRESS: at 19.08% examples, 388379 words/s, in_qsize 15, out_qsize 0
2019-01-02 14:52:55,620 : INFO : EPOCH 27 - PROGRESS: at 23.42% examples, 381237 words/s, in_qsize 14, out_qsize 1
2019-01-02 14:52:56,637 : INFO : EPOCH 27 - PROGRESS: at 28.50% examples, 386304 words/s, in_qsize 15, out_qsize 0
2019-01-02 14:52:57,681 : INFO : EPOCH 27 - PROGRESS: at 33.70% examples, 389661 words/s, in_qsize 15, out_qsize 0
2019-01-02 14:52:58,747 : INFO : EPOCH 27 - PROGRESS: at 38.46% examples, 386800 words/s, in_qsize 14, out_qsize 1
2019-01-02 14:52:59,755 : INFO : EPOCH 27 - PROGRESS: at 43.64% examples, 390911 words/s, in_qsize 15, out_qsize 0
2019-01-02 14:53:00,770 : INFO : EPOCH 27 - PROGRESS: at 48.30% examples, 389552 words/s, in_qsize 16, out_qsize 1
2019-01-02 14:53:01,801 : INFO : EPOCH 27 - PROGRESS: at 53.48% examples, 391885 words/s, in_qsize 15, out_qsize 0
2019-01-02 14:53:02,817 : INFO : EPOCH 27 - PROGRESS: at 58.25% examples, 391427 words/s, in_qsize 15, out_qsize 0
2019-01-02 14:53:03,862 : INFO : EPOCH 27 - PROGRESS: at 62.58% examples, 387440 words/s, in_qsize 15, out_qsize 0
2019-01-02 14:53:04,919 : INFO : EPOCH 27 - PROGRESS: at 67.67% examples, 388484 words/s, in_qsize 15, out_qsize 1
2019-01-02 14:53:05,906 : INFO : EPOCH 27 - PROGRESS: at 72.42% examples, 388650 words/s, in_qsize 14, out_qsize 1
2019-01-02 14:53:07,016 : INFO : EPOCH 27 - PROGRESS: at 77.42% examples, 387315 words/s, in_qsize 15, out_qsize 0
2019-01-02 14:53:08,103 : INFO : EPOCH 27 - PROGRESS: at 82.85% examples, 388728 words/s, in_qsize 15, out_qsize 0
2019-01-02 14:53:09,135 : INFO : EPOCH 27 - PROGRESS: at 87.72% examples, 388686 words/s, in_qsize 14, out_qsize 1
2019-01-02 14:53:10,181 : INFO : EPOCH 27 - PROGRESS: at 92.83% examples, 389639 words/s, in_qsize 16, out_qsize 0
2019-01-02 14:53:11,163 : INFO : EPOCH 27 - PROGRESS: at 97.71% examples, 390169 words/s, in_qsize 14, out_qsize 1

2019-01-02 14:53:11,421 : INFO : worker thread finished; awaiting finish of 7 more threads
2019-01-02 14:53:11,431 : INFO : worker thread finished; awaiting finish of 6 more threads
2019-01-02 14:53:11,432 : INFO : worker thread finished; awaiting finish of 5 more threads
2019-01-02 14:53:11,458 : INFO : worker thread finished; awaiting finish of 4 more threads
2019-01-02 14:53:11,476 : INFO : worker thread finished; awaiting finish of 3 more threads
2019-01-02 14:53:11,493 : INFO : worker thread finished; awaiting finish of 2 more threads
2019-01-02 14:53:11,496 : INFO : worker thread finished; awaiting finish of 1 more threads
2019-01-02 14:53:11,504 : INFO : worker thread finished; awaiting finish of 0 more threads
2019-01-02 14:53:11,504 : INFO : EPOCH - 27 : training on 9227204 raw words (8221447 effective words) took 20.9s, 392791 effective words/s
2019-01-02 14:53:12,539 : INFO : EPOCH 28 - PROGRESS: at 4.02% examples, 324209 words/s, in_qsize 16, out_qsize 6
2019-01-02 14:53:13,655 : INFO : EPOCH 28 - PROGRESS: at 9.66% examples, 374475 words/s, in_qsize 15, out_qsize 0
2019-01-02 14:53:14,693 : INFO : EPOCH 28 - PROGRESS: at 14.43% examples, 373603 words/s, in_qsize 16, out_qsize 0
2019-01-02 14:53:15,723 : INFO : EPOCH 28 - PROGRESS: at 19.62% examples, 383729 words/s, in_qsize 15, out_qsize 0
2019-01-02 14:53:16,751 : INFO : EPOCH 28 - PROGRESS: at 24.61% examples, 386749 words/s, in_qsize 15, out_qsize 0
2019-01-02 14:53:17,809 : INFO : EPOCH 28 - PROGRESS: at 29.37% examples, 384019 words/s, in_qsize 15, out_qsize 0
2019-01-02 14:53:18,823 : INFO : EPOCH 28 - PROGRESS: at 34.24% examples, 385605 words/s, in_qsize 15, out_qsize 0
2019-01-02 14:53:19,906 : INFO : EPOCH 28 - PROGRESS: at 39.22% examples, 385540 words/s, in_qsize 15, out_qsize 0
2019-01-02 14:53:20,932 : INFO : EPOCH 28 - PROGRESS: at 44.18% examples, 386256 words/s, in_qsize 15, out_qsize 0
2019-01-02 14:53:21,963 : INFO : EPOCH 28 - PROGRESS: at 48.84% examples, 384887 words/s, in_qsize 15, out_qsize 5
2019-01-02 14:53:23,004 : INFO : EPOCH 28 - PROGRESS: at 54.13% examples, 387941 words/s, in_qsize 16, out_qsize 0
2019-01-02 14:53:24,031 : INFO : EPOCH 28 - PROGRESS: at 58.80% examples, 386726 words/s, in_qsize 15, out_qsize 2
2019-01-02 14:53:25,043 : INFO : EPOCH 28 - PROGRESS: at 63.43% examples, 386115 words/s, in_qsize 15, out_qsize 0

2019-01-02 14:53:26,075 : INFO : EPOCH 28 - PROGRESS: at 68.53% examples, 387930 words/s, in_qsize 15, out_qsize 0
2019-01-02 14:53:27,180 : INFO : EPOCH 28 - PROGRESS: at 73.40% examples, 385715 words/s, in_qsize 15, out_qsize 3
2019-01-02 14:53:28,205 : INFO : EPOCH 28 - PROGRESS: at 78.40% examples, 386720 words/s, in_qsize 16, out_qsize 5
2019-01-02 14:53:29,302 : INFO : EPOCH 28 - PROGRESS: at 83.72% examples, 387280 words/s, in_qsize 15, out_qsize 0
2019-01-02 14:53:30,323 : INFO : EPOCH 28 - PROGRESS: at 88.91% examples, 388982 words/s, in_qsize 15, out_qsize 0
2019-01-02 14:53:31,359 : INFO : EPOCH 28 - PROGRESS: at 94.03% examples, 389734 words/s, in_qsize 15, out_qsize 0
2019-01-02 14:53:32,382 : INFO : EPOCH 28 - PROGRESS: at 98.90% examples, 389830 words/s, in_qsize 11, out_qsize 0
2019-01-02 14:53:32,466 : INFO : worker thread finished; awaiting finish of 7 more threads
2019-01-02 14:53:32,469 : INFO : worker thread finished; awaiting finish of 6 more threads
2019-01-02 14:53:32,472 : INFO : worker thread finished; awaiting finish of 5 more threads
2019-01-02 14:53:32,488 : INFO : worker thread finished; awaiting finish of 4 more threads
2019-01-02 14:53:32,499 : INFO : worker thread finished; awaiting finish of 3 more threads
2019-01-02 14:53:32,507 : INFO : worker thread finished; awaiting finish of 2 more threads
2019-01-02 14:53:32,509 : INFO : worker thread finished; awaiting finish of 1 more threads
2019-01-02 14:53:32,512 : INFO : worker thread finished; awaiting finish of 0 more threads
2019-01-02 14:53:32,513 : INFO : EPOCH - 28 : training on 9227204 raw words (8221915 effective words) took 21.0s, 391703 effective words/s
2019-01-02 14:53:33,588 : INFO : EPOCH 29 - PROGRESS: at 4.45% examples, 347533 words/s, in_qsize 16, out_qsize 0
2019-01-02 14:53:34,646 : INFO : EPOCH 29 - PROGRESS: at 9.45% examples, 367544 words/s, in_qsize 15, out_qsize 0
2019-01-02 14:53:35,733 : INFO : EPOCH 29 - PROGRESS: at 14.65% examples, 376250 words/s, in_qsize 15, out_qsize 1
2019-01-02 14:53:36,748 : INFO : EPOCH 29 - PROGRESS: at 19.51% examples, 380611 words/s, in_qsize 15, out_qsize 0
2019-01-02 14:53:37,817 : INFO : EPOCH 29 - PROGRESS: at 24.72% examples, 384694 words/s, in_qsize 15, out_qsize 0
2019-01-02 14:53:38,899 : INFO : EPOCH 29 - PROGRESS: at 29.70% examples, 384577 words/s, in_qsize 15, out_qsize 3

2019-01-02 14:53:39,890 : INFO : EPOCH 29 - PROGRESS: at 34.46% examples, 385171 words/s, in_qsize 15, out_qsize 0
2019-01-02 14:53:40,969 : INFO : EPOCH 29 - PROGRESS: at 39.65% examples, 386579 words/s, in_qsize 13, out_qsize 2
2019-01-02 14:53:41,969 : INFO : EPOCH 29 - PROGRESS: at 44.73% examples, 389949 words/s, in_qsize 14, out_qsize 1
2019-01-02 14:53:43,080 : INFO : EPOCH 29 - PROGRESS: at 49.70% examples, 387752 words/s, in_qsize 15, out_qsize 0
2019-01-02 14:53:44,096 : INFO : EPOCH 29 - PROGRESS: at 54.67% examples, 389162 words/s, in_qsize 15, out_qsize 0
2019-01-02 14:53:45,119 : INFO : EPOCH 29 - PROGRESS: at 59.44% examples, 388676 words/s, in_qsize 15, out_qsize 0
2019-01-02 14:53:46,130 : INFO : EPOCH 29 - PROGRESS: at 64.51% examples, 390580 words/s, in_qsize 16, out_qsize 0
2019-01-02 14:53:47,255 : INFO : EPOCH 29 - PROGRESS: at 69.29% examples, 387355 words/s, in_qsize 16, out_qsize 0
2019-01-02 14:53:48,279 : INFO : EPOCH 29 - PROGRESS: at 74.37% examples, 388730 words/s, in_qsize 13, out_qsize 2
2019-01-02 14:53:49,306 : INFO : EPOCH 29 - PROGRESS: at 79.38% examples, 389351 words/s, in_qsize 15, out_qsize 0
2019-01-02 14:53:50,344 : INFO : EPOCH 29 - PROGRESS: at 83.94% examples, 387660 words/s, in_qsize 16, out_qsize 0
2019-01-02 14:53:51,350 : INFO : EPOCH 29 - PROGRESS: at 89.23% examples, 390109 words/s, in_qsize 15, out_qsize 0
2019-01-02 14:53:52,363 : INFO : EPOCH 29 - PROGRESS: at 93.59% examples, 388133 words/s, in_qsize 14, out_qsize 1
2019-01-02 14:53:53,383 : INFO : EPOCH 29 - PROGRESS: at 98.47% examples, 388377 words/s, in_qsize 13, out_qsize 2
2019-01-02 14:53:53,531 : INFO : worker thread finished; awaiting finish of 7 more threads
2019-01-02 14:53:53,537 : INFO : worker thread finished; awaiting finish of 6 more threads
2019-01-02 14:53:53,561 : INFO : worker thread finished; awaiting finish of 5 more threads
2019-01-02 14:53:53,564 : INFO : worker thread finished; awaiting finish of 4 more threads
2019-01-02 14:53:53,568 : INFO : worker thread finished; awaiting finish of 3 more threads
2019-01-02 14:53:53,571 : INFO : worker thread finished; awaiting finish of 2 more threads
2019-01-02 14:53:53,573 : INFO : worker thread finished; awaiting finish of 1 more threads
2019-01-02 14:53:53,579 : INFO : worker thread finished; awaiting finish of 0 more threads

2019-01-02 14:53:53,579 : INFO : EPOCH - 29 : training on 9227204 raw words (8221418 effective words) took 21.0s, 390729 effective words/s
2019-01-02 14:53:54,590 : INFO : EPOCH 30 - PROGRESS: at 4.13% examples, 338060 words/s, in_qsize 15, out_qsize 0
2019-01-02 14:53:55,615 : INFO : EPOCH 30 - PROGRESS: at 8.90% examples, 360669 words/s, in_qsize 13, out_qsize 2
2019-01-02 14:53:56,682 : INFO : EPOCH 30 - PROGRESS: at 13.79% examples, 365794 words/s, in_qsize 15, out_qsize 0
2019-01-02 14:53:57,724 : INFO : EPOCH 30 - PROGRESS: at 18.87% examples, 374771 words/s, in_qsize 15, out_qsize 0
2019-01-02 14:53:58,849 : INFO : EPOCH 30 - PROGRESS: at 24.06% examples, 377031 words/s, in_qsize 15, out_qsize 2
2019-01-02 14:53:59,852 : INFO : EPOCH 30 - PROGRESS: at 29.05% examples, 381161 words/s, in_qsize 12, out_qsize 3
2019-01-02 14:54:00,866 : INFO : EPOCH 30 - PROGRESS: at 34.24% examples, 386808 words/s, in_qsize 16, out_qsize 0
2019-01-02 14:54:01,879 : INFO : EPOCH 30 - PROGRESS: at 38.78% examples, 384631 words/s, in_qsize 15, out_qsize 0
2019-01-02 14:54:02,901 : INFO : EPOCH 30 - PROGRESS: at 43.54% examples, 385063 words/s, in_qsize 15, out_qsize 1
2019-01-02 14:54:03,930 : INFO : EPOCH 30 - PROGRESS: at 48.40% examples, 385061 words/s, in_qsize 15, out_qsize 0
2019-01-02 14:54:05,016 : INFO : EPOCH 30 - PROGRESS: at 53.38% examples, 384344 words/s, in_qsize 15, out_qsize 0
2019-01-02 14:54:06,023 : INFO : EPOCH 30 - PROGRESS: at 58.58% examples, 387652 words/s, in_qsize 15, out_qsize 0
2019-01-02 14:54:07,058 : INFO : EPOCH 30 - PROGRESS: at 63.11% examples, 385629 words/s, in_qsize 13, out_qsize 2
2019-01-02 14:54:08,120 : INFO : EPOCH 30 - PROGRESS: at 68.21% examples, 386256 words/s, in_qsize 15, out_qsize 0
2019-01-02 14:54:09,143 : INFO : EPOCH 30 - PROGRESS: at 73.08% examples, 386627 words/s, in_qsize 15, out_qsize 0
2019-01-02 14:54:10,160 : INFO : EPOCH 30 - PROGRESS: at 78.51% examples, 389783 words/s, in_qsize 16, out_qsize 0
2019-01-02 14:54:11,221 : INFO : EPOCH 30 - PROGRESS: at 82.96% examples, 387058 words/s, in_qsize 15, out_qsize 0
2019-01-02 14:54:12,267 : INFO : EPOCH 30 - PROGRESS: at 88.37% examples, 389217 words/s, in_qsize 15, out_qsize 0
2019-01-02 14:54:13,281 : INFO : EPOCH 30 - PROGRESS: at 93.05% examples, 388592 words/s, in_qsize 15, out_qsize 1
2019-01-02 14:54:14,315 : INFO : EPOCH 30 - PROGRESS: at 98.25% examples, 389828 words/s, in_qsize 14, out_qsize 1
2019-01-02 14:54:14,496 : INFO : worker thread finished; awaiting finish of 7 more threads

2019-01-02 14:54:14,527 : INFO : worker thread finished; awaiting finish of 6 more threads
2019-01-02 14:54:14,551 : INFO : worker thread finished; awaiting finish of 5 more threads
2019-01-02 14:54:14,552 : INFO : worker thread finished; awaiting finish of 4 more threads
2019-01-02 14:54:14,555 : INFO : worker thread finished; awaiting finish of 3 more threads
2019-01-02 14:54:14,556 : INFO : worker thread finished; awaiting finish of 2 more threads
2019-01-02 14:54:14,560 : INFO : worker thread finished; awaiting finish of 1 more threads
2019-01-02 14:54:14,566 : INFO : worker thread finished; awaiting finish of 0 more threads
2019-01-02 14:54:14,567 : INFO : EPOCH - 30 : training on 9227204 raw words (8223578 effective words) took 21.0s, 392003 effective words/s
2019-01-02 14:54:15,593 : INFO : EPOCH 31 - PROGRESS: at 4.34% examples, 350306 words/s, in_qsize 15, out_qsize 0
2019-01-02 14:54:16,599 : INFO : EPOCH 31 - PROGRESS: at 9.01% examples, 365642 words/s, in_qsize 14, out_qsize 1
2019-01-02 14:54:17,608 : INFO : EPOCH 31 - PROGRESS: at 14.00% examples, 379032 words/s, in_qsize 15, out_qsize 0
2019-01-02 14:54:18,625 : INFO : EPOCH 31 - PROGRESS: at 18.97% examples, 385025 words/s, in_qsize 15, out_qsize 0
2019-01-02 14:54:19,678 : INFO : EPOCH 31 - PROGRESS: at 23.96% examples, 385875 words/s, in_qsize 15, out_qsize 0
2019-01-02 14:54:20,686 : INFO : EPOCH 31 - PROGRESS: at 29.16% examples, 392239 words/s, in_qsize 15, out_qsize 0
2019-01-02 14:54:21,689 : INFO : EPOCH 31 - PROGRESS: at 33.81% examples, 390701 words/s, in_qsize 16, out_qsize 0
2019-01-02 14:54:22,707 : INFO : EPOCH 31 - PROGRESS: at 39.22% examples, 396574 words/s, in_qsize 16, out_qsize 0
2019-01-02 14:54:23,762 : INFO : EPOCH 31 - PROGRESS: at 43.86% examples, 393222 words/s, in_qsize 15, out_qsize 1
2019-01-02 14:54:24,773 : INFO : EPOCH 31 - PROGRESS: at 48.41% examples, 390482 words/s, in_qsize 15, out_qsize 1
2019-01-02 14:54:25,799 : INFO : EPOCH 31 - PROGRESS: at 53.48% examples, 392130 words/s, in_qsize 15, out_qsize 0
2019-01-02 14:54:26,863 : INFO : EPOCH 31 - PROGRESS: at 58.47% examples, 391549 words/s, in_qsize 15, out_qsize 0
2019-01-02 14:54:27,870 : INFO : EPOCH 31 - PROGRESS: at 63.43% examples, 392666 words/s, in_qsize 14, out_qsize 1
2019-01-02 14:54:28,894 : INFO : EPOCH 31 - PROGRESS: at 68.64% examples, 394469 words/s, in_qsize 15, out_qsize 0

2019-01-02 14:54:29,912 : INFO : EPOCH 31 - PROGRESS: at 73.52% examples, 394417 words/s, in_qsize 15, out_qsize 0
2019-01-02 14:54:30,914 : INFO : EPOCH 31 - PROGRESS: at 78.18% examples, 393676 words/s, in_qsize 14, out_qsize 1
2019-01-02 14:54:31,961 : INFO : EPOCH 31 - PROGRESS: at 83.18% examples, 393671 words/s, in_qsize 15, out_qsize 0
2019-01-02 14:54:32,972 : INFO : EPOCH 31 - PROGRESS: at 87.94% examples, 393201 words/s, in_qsize 15, out_qsize 0
2019-01-02 14:54:33,979 : INFO : EPOCH 31 - PROGRESS: at 92.94% examples, 393908 words/s, in_qsize 15, out_qsize 0
2019-01-02 14:54:35,074 : INFO : EPOCH 31 - PROGRESS: at 97.82% examples, 392421 words/s, in_qsize 15, out_qsize 0
2019-01-02 14:54:35,319 : INFO : worker thread finished; awaiting finish of 7 more threads
2019-01-02 14:54:35,322 : INFO : worker thread finished; awaiting finish of 6 more threads
2019-01-02 14:54:35,324 : INFO : worker thread finished; awaiting finish of 5 more threads
2019-01-02 14:54:35,371 : INFO : worker thread finished; awaiting finish of 4 more threads
2019-01-02 14:54:35,379 : INFO : worker thread finished; awaiting finish of 3 more threads
2019-01-02 14:54:35,380 : INFO : worker thread finished; awaiting finish of 2 more threads
2019-01-02 14:54:35,381 : INFO : worker thread finished; awaiting finish of 1 more threads
2019-01-02 14:54:35,391 : INFO : worker thread finished; awaiting finish of 0 more threads
2019-01-02 14:54:35,391 : INFO : EPOCH - 31 : training on 9227204 raw words (8222726 effective words) took 20.8s, 395041 effective words/s
2019-01-02 14:54:36,467 : INFO : EPOCH 32 - PROGRESS: at 4.45% examples, 343325 words/s, in_qsize 15, out_qsize 0
2019-01-02 14:54:37,500 : INFO : EPOCH 32 - PROGRESS: at 9.34% examples, 365600 words/s, in_qsize 16, out_qsize 0
2019-01-02 14:54:38,562 : INFO : EPOCH 32 - PROGRESS: at 14.11% examples, 366650 words/s, in_qsize 15, out_qsize 0
2019-01-02 14:54:39,567 : INFO : EPOCH 32 - PROGRESS: at 19.08% examples, 376513 words/s, in_qsize 15, out_qsize 0
2019-01-02 14:54:40,592 : INFO : EPOCH 32 - PROGRESS: at 23.74% examples, 376065 words/s, in_qsize 16, out_qsize 0
2019-01-02 14:54:41,631 : INFO : EPOCH 32 - PROGRESS: at 28.50% examples, 376257 words/s, in_qsize 16, out_qsize 1
2019-01-02 14:54:42,672 : INFO : EPOCH 32 - PROGRESS: at 33.27% examples, 376274 words/s, in_qsize 15, out_qsize 0

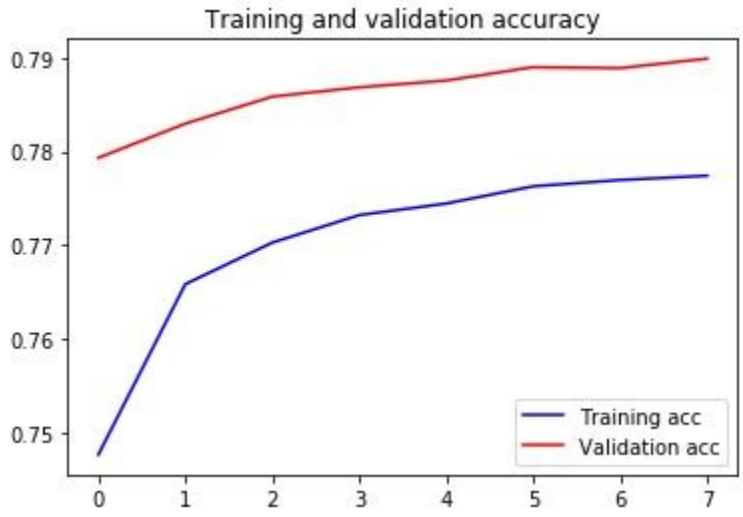
2019-01-02 14:54:43,689 : INFO : EPOCH 32 - PROGRESS: at 38.14% examples, 378483 words/s, in_qsize 15, out_qsize 1
2019-01-02 14:54:44,711 : INFO : EPOCH 32 - PROGRESS: at 43.21% examples, 381908 words/s, in_qsize 15, out_qsize 0
2019-01-02 14:54:45,736 : INFO : EPOCH 32 - PROGRESS: at 47.54% examples, 378497 words/s, in_qsize 15, out_qsize 3
2019-01-02 14:54:46,739 : INFO : EPOCH 32 - PROGRESS: at 52.62% examples, 381965 words/s, in_qsize 16, out_qsize 0
2019-01-02 14:54:47,761 : INFO : EPOCH 32 - PROGRESS: at 57.60% examples, 383568 words/s, in_qsize 15, out_qsize 0
2019-01-02 14:54:48,770 : INFO : EPOCH 32 - PROGRESS: at 62.14% examples, 382814 words/s, in_qsize 15, out_qsize 1
2019-01-02 14:54:49,764 : INFO : EPOCH 32 - PROGRESS: at 67.13% examples, 384659 words/s, in_qsize 15, out_qsize 1
2019-01-02 14:54:50,847 : INFO : EPOCH 32 - PROGRESS: at 72.10% examples, 384206 words/s, in_qsize 16, out_qsize 1
2019-01-02 14:54:51,873 : INFO : EPOCH 32 - PROGRESS: at 77.20% examples, 385681 words/s, in_qsize 15, out_qsize 0
2019-01-02 14:54:52,931 : INFO : EPOCH 32 - PROGRESS: at 82.21% examples, 385750 words/s, in_qsize 15, out_qsize 0
2019-01-02 14:54:53,948 : INFO : EPOCH 32 - PROGRESS: at 86.96% examples, 386012 words/s, in_qsize 12, out_qsize 4
2019-01-02 14:54:54,938 : INFO : EPOCH 32 - PROGRESS: at 91.85% examples, 386687 words/s, in_qsize 15, out_qsize 1
2019-01-02 14:54:55,963 : INFO : EPOCH 32 - PROGRESS: at 96.75% examples, 386913 words/s, in_qsize 15, out_qsize 0
2019-01-02 14:54:56,495 : INFO : worker thread finished; awaiting finish of 7 more threads
2019-01-02 14:54:56,498 : INFO : worker thread finished; awaiting finish of 6 more threads
2019-01-02 14:54:56,499 : INFO : worker thread finished; awaiting finish of 5 more threads
2019-01-02 14:54:56,508 : INFO : worker thread finished; awaiting finish of 4 more threads
2019-01-02 14:54:56,526 : INFO : worker thread finished; awaiting finish of 3 more threads
2019-01-02 14:54:56,530 : INFO : worker thread finished; awaiting finish of 2 more threads
2019-01-02 14:54:56,539 : INFO : worker thread finished; awaiting finish of 1 more threads
2019-01-02 14:54:56,544 : INFO : worker thread finished; awaiting finish of 0 more threads
2019-01-02 14:54:56,544 : INFO : EPOCH - 32 : training on 9227204 raw words (8222965 effective words) took 21.1s, 388960 effective words/s

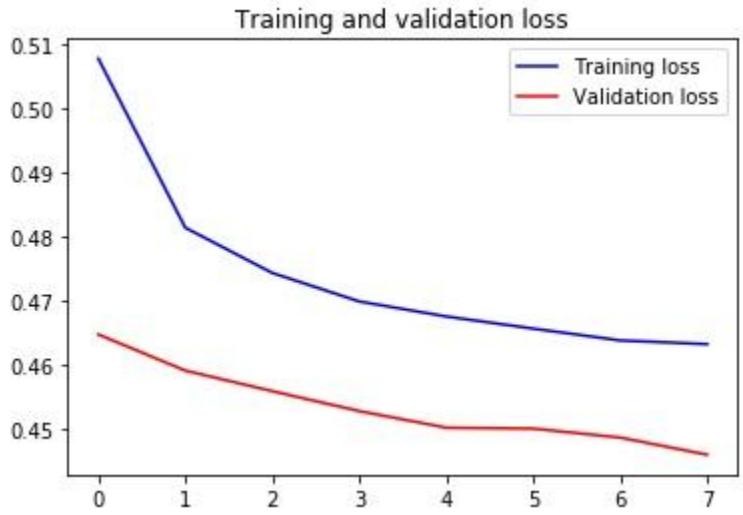
2019-01-02 14:54:56,545 : INFO : training on a 295270528 raw words (263127249 effective words) took 735.5s, 357769 effective words/s

[('luv', 0.5732780694961548),
 ('loves', 0.5623787045478821),
 ('loved', 0.5373271703720093),
 ('amazing', 0.5026600360870361),
 ('adore', 0.4942743480205536),
 ('looove', 0.47235167026519775),
 ('awesome', 0.4598265290260315),
 ('lovee', 0.45823752880096436),
 ('loveee', 0.4531649351119995),
 ('loooove', 0.44260522723197937)]

320000/320000 [==============================] - 113s 352us/step

ACCURACY: 0.791134375
LOSS: 0.4442952796936035
CPU times: user 2min 25s, sys: 16.9 s, total: 2min 42s
Wall time: 1min 52s





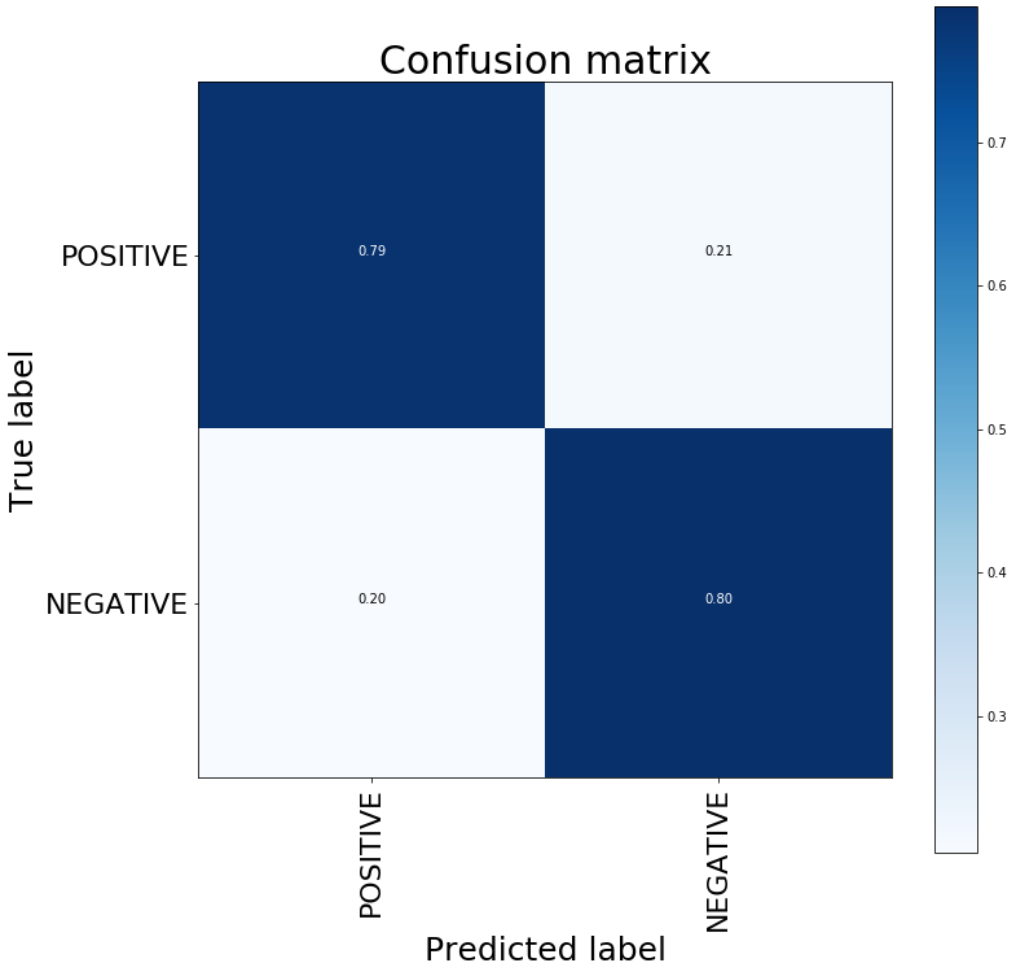
OUTPUT OF TEST CASES

{'label': 'POSITIVE',
'score': 0.9656286239624023,
'elapsed_time': 0.4439425468444824}

{'label': 'NEGATIVE',
'score': 0.010753681883215904,
'elapsed_time': 0.26644086837768555}

{'label': 'NEGATIVE',
'score': 0.2742374837398529,

'elapsed_time':
0.25728774070739746}



CLASSIFICATION REPORT

	precision	recall	f1-score	support
NEGATIVE	0.79	0.79	0.79	159494
POSITIVE	0.79	0.80	0.79	160506
micro avg	0.79	0.79	0.79	320000
macro avg	0.79	0.79	0.79	320000
weighted avg	0.79	0.79	0.79	320000

ACCURACY SCORE

0.791134375

TESTING

7.1 INTRODUCTION

The development of software includes series of productive activities and testing is an important activity of them. This phase is a critical element of software quality assurance and represents the ultimate review of specification, coding and testing.

The main objectives of testing are as follows:

- Testing is a process of executing a program with the intent of finding an error.
- A good test case is one that has a high probability of finding an undiscovered error.
- A successful test is one uncovers an undiscovered error.

  Testing can be done in different ways. Some of the types of testing are mentioned below. The main purpose of any type of test is to systematically uncover different classes of errors and do so with a minimum amount of time and effort.

Types of testing

- Unit testing
- Integration testing
- Regression testing
- System testing
- Performance Testing
- Alpha testing
- Beta testing

Testing can be done manually or by testing tools .There are several testing tools for different software.

Unit Testing: It is a method by which individual units of source code, sets of one or more computer modules together with associated control data, usage procedures and operating procedures, are tested

to determine if they are fit for use. Unit testing focuses verification effort on the smallest unit of software design-the software component or module. The unit test is white-box oriented. The unit testing is implemented in every module of student attendance management System.By giving correct manual input to the system ,the datas are stored in database and retrieved. If we want required module to access input or get the output , it should be checked for the accessibility and result is to be displayed else error message should be displayed.

Integration Testing: It is the phase in software testing in which individual software modules are combined and tested as a group. Integration testing takes as its input modules that have been unit tested, groups them in larger aggregates, applies tests defined in an integration test plan to those aggregates, and delivers as its output the integrated system ready for system testing.

Regression Testing: Regression testing is any type of software testing that seeks to uncover new software bugs, or regressions, in existing functional and non-functional areas of a system after changes such as enhancements, patches or configuration changes, have been made to them.

System Testing: System testing of software or hardware is testing conducted on a complete integrated system to evaluate the system's compliance with its specified requirements.System testing is actually a series of different tests whose primary purpose is to fully exercise the computer-based system.

Performance Testing: Performance testing is designed to test the run-time performance of software within the context of an integrated system. Performance testing occurs throughout all steps in the testing process. Even at the unit level, the performance of an individual module may be assessed as white-box tests are conducted.This project reduces manual work and helps in getting students attendance status in much faster. No extra time is required waiting for the results, as soon as the correct data is entered the resulted will be displayed in a few millisecond.

Alpha Testing: Alpha testing is simulated or actual operational testing by potential users/customers or an independent test team at the developer's site. Alpha testing is often employed for off-the-shelf software as a form of internal acceptance testing , before the software goes to beta testing.

Beta testing: Beta testing comes after alpha testing and can be considered a form of external user acceptance testing. Versions of the software, known as beta versions, are released to a limited outside of the programming team. The software is released to groups of people so that further testing can ensure the product has few faults or bugs. Sometimes beta versions are made available to the open public to increase the feedback field to a maximal number of future users.

Each module can be tested using the following two stratergies:

(1) Internal program logic is exercised using ―White box ‖ test case design Techniques.

(2) Software requirements are exercised using ―block box ‖ test case Design techniques.In both cases, the intent is to find the maximum number of errors with theMinimum amount of effort and time.

Black box Testing: In this stratergy some test cases are generated as input conditions that execute all functional requirements for the program. This testing is used to find errors in the following categories:

- Incorrect or missing functions
- Interface errors
- Errors in data structure or external database access
- Performance errors
- Initialization and termination errors

In this testing , only the output is checked for correctness. The logical flow of the data is not checked.

White box Testing: In this testing, test cases are generated on the logic of each module by drawing flow graphs of that module and logical decisions are tested on all the cases. It is a method of testing software tests internal structures or workings of an application as opposed to its functionality(ie. Black box testing). In white box testing an internal perspective of the system, as well as programming skills, are used to design test cases. The tester chooses inputs to exercise paths throw the code and determine appropriate outputs. This is analogous to testing nodes in a circuit.

White box Testing can be applied at the unit, integration, system levels of the software testing process. Although traditional testers tened to think of White box Testing as being one at the unit level.

7.2 TEST CASES

Test case is an object for execution for other modules in the architecture does not represent any interaction by itself. A test case is a set of sequential steps to execute a test operating on a set of predefined inputs to produce certain expected outputs. There are two types of test cases:-manual and automated.

A manual test case is executed manually while an automated test case is executed using automation.In system testing, test data should cover the possible values of each parameter based on the requirements. Since testing every value is impractical, a few values should be chosen from each equivalence class. An equivalence class is a set of values that should all be treated the same.Ideally, test cases that check error conditions are written separately from the functional test cases and should have steps to verify the error messages and logs.Realistically, if functional test cases are not yet written, it is ok for testers to check for error conditions when performing normal functional test cases. It should be clear which test data, if any is expected to trigger errors.

The Existing system is a manual entry for the students. Here the attendance will be carried out in the hand written registers. It will be a tedious job to maintain the record for the user. The human effort is more here. The retrieval of the information is not as easy as the records are maintained in the hand written registers.This application requires correct feed on input into the respective field. Suppose the wrong inputs are entered, the application resist to work. so the user find it difficult to use.

CONCLUSION

The Classification algorithm is developed using CNN (Convolutional Neural Networks) and fully meets the objectives of the algorithm which has been developed .The algorithm has reached steady state where the accuracy is highest achieved and all the faculty and administration associated with the system understands its advantage .The algorithm solves the problem,it was intended to solve as requirement specification.

The proposed system has been accurate in predicting the outcome with good accuracy. Moreover the confusion matrix is also given to help the user understand the performance of the classification model.

BIBLOGRAPHY

- Machine Learning from Courser any Andrew Ng.
- Understanding Convolutional Neural network by Saad Albawi.
- Learn Python the Hard Way by Zed A. Shaw.
- You tube- www.youtube.com
- Stack Overflow- stackoverflow.com
- Tutorials point- www.tutorialspoint.com
- Kaggle – www.kaggle.com