

# Your Chatbot Teacher: Information Retrieval and Aggregation to Dialogue For Learning Facilitation

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## Abstract

Our project is building a chatbot designed to hold a meaningful conversation with a user about topics of their choosing. It is trained on thousands of posts and comments from reddit. The chatbot consists of 2 stages, where Stage 1 classifies the user input into 50 potential subreddits, and Stage 2 generates the reply to the user. Stage 2 can either perform Information Retrieval (IR), or text generation. Stage 1's classifier is very accurate, with 96% accuracy, but Stage 2 has trouble retrieving relevant sentences, or generating sentences of its own..

## 1 Introduction

Contextual chatbot interfaces for information retrieval will be a big industry in the future. Currently, people gather their own information on subjects or news by looking at journal articles or news articles accessed from googling. But we believe that in the future, there will be central chatbots that are up to date on current knowledge of certain areas, kind of like teachers/professors of today's world. If you want to know information on a certain subject, you can look at its wikipedia page, or interact with a chatbot that has not only learned the wikipedia page, but also related news articles and people's comments on the subject matter. This gives a much richer learning experience for the user, as the chatbot is able to bring in much more information and give it in a friendly human interactive manner by answering questions the user has.

Our project is building a chatbot designed to hold a meaningful conversation with a user about topics of their choosing. We limited the information to reddit posts and comments, so if a

user wants to know about recent movies, the chatbot will look at reddit comments related to recent movies and will try to output a sentence with relevant information like ratings and an aggregation of people's opinions. As shown later in this paper, we had trouble generating relevant sentences, but had more success in text retrieval.

Chatbots already exist, but aren't designed to convey relevant news, opinions, or information. They're mainly designed to be used as an action-based chatbot, or language translator. Researchers seem to focus on how accurate they can get chatbots, or more specifically, text generators, to output English. We are different, because we wanted to build a chatbot designed to convey information in a dialogue form. The user is meant to learn from interacting with our chatbot.

We divided our project into 2 stages, the first is focused on training the encoder to correctly classify the topic of a given input sentence into one of 51 subreddits classes. On the second stage, we integrate the classifier component with information retrieval, and for text generation, with the decoder to create meaningful sentences that is pertinent to the input and also contains information learned from Reddit comments. Results on our stage 1 experiments as shown in section 4 of our report appears to be pretty positive. Results from Stage 2 are lackluster, and would need significant changes to be a viable chatbot. Possible improvements are shown in section 5.

For Stage 2 of our project, we tried out retrieval-based generation, and text generation. Retrieval based generation tried to select relevant reddit comments to reply to the user instead of generating its own sentences. And text generation tried to generate its own sentences. We then compared results from the two strategies. We

decide to evaluate our retrieval based generation with MAP, and our text generation on BLEU and GLEU [8]. For BLEU and GLEU, we made modifications, because the target comments that our chatbot is supposed to replicate, include actual replies to the reddit comments we used for training. For evaluation, we used a sample of 100 possible user inputs, and 100 of the best responses to each one of those sample inputs. We then compare the actual output from the chatbot to the best possible responses, and compare their TF-IDF score and relevancy. For example, the chatbot scores higher if its response shares common words with the target response. A final ratio will be given, where the higher the ratio, the more the chatbot was close or succeeded in providing a great response.

Our stage 1 classification model has a high accuracy of 96%, and our stage 2 encoder-decoder for sequence-to-sequence text generation can achieve 65% accuracy. We are constrained by training time, but we have shown that the longer our stage 2 model trains, the better its responses get.

## 2 Related Work

OpenAI created a state-of-the-art text generator using Transformers. Other research has shown that Transformers can outperform all types of recurrent neural networks and convolutional neural networks. Transformers can perform significantly better than convolutions and recurrence. “Attention Is All You Need” by Vaswani et. al. [9]

General Adversarial Networks (GAN) can be used for generating dialogues. Relevant papers: “Adversarial Learning for Neural Dialogue Generation” by Monroe et. al. [10], “Adversarial Feature Matching for Text Generation” by Zhang et. al. [11]

Google released a paper about their google translate decoder architecture. GNMT, Google Neural Machine Translation system, which uses a deep LSTM architecture with many encoders and decoders. This system is used for translating existing sentence though, but understanding the decoder architecture could be useful. Google’s Neural Machine Translation (GNMT) Decoder architecture. “Google’s Neural Machine Translation System: Bridging the Gap between Human and Machine Translation” by Wu et. al. [12]

Google has also outlined a sequence to sequence system that uses deep neural networks,

and LSTMs. “Sequence to Sequence Learning with Neural Networks” by Sutskever et. al. [13]

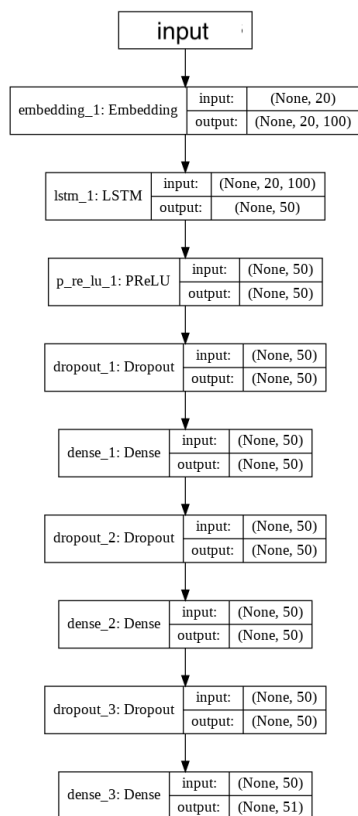
“A Deep Reinforcement Learning Chatbot” by Serban et. al. [15]. This paper incorporates many NLP techniques to develop a chatbot, like an ensemble of natural language generation and retrieval models, including template-based models, bag-of-words models, sequence-to-sequence neural network and latent variable neural network models.

Our proposed model is different because it is designed to convey relevant news, opinions, or information to a user through a dialogue, instead of being an action-based chatbot. Other text generators are also used to just generate stories, or to translate the user input into another language. Our chatbot will use a similar technique, but used for a very different reason. The way our system is structured, is also quite different than the quoted papers, since we will have 2 stages to our system, where the first is a classifier of the topic, and the second is a text generator based on the user’s input and the classified topic.

## 3 Approach

The chatbot consists of two stages. The first stage is a classification stage, where a classification model takes in reddit comments and sentences, and determines which subreddit that comment belongs to. This will allow a user’s initial sentence to a chatbot, spawn the appropriate and relevant discussion. For the second stage, we tried two different approaches. One is an Information Retrieval approach, which is where the chatbot replied to the user with the most relevant comment that it could determine, and the other approach is a text-generation approach. Text generation is a sequence-to-sequence (encoder and decoder) model that takes in comments/sentences, and generates its own sentences. We also had an idea of having a model for each subreddit that’s trained only on that subreddit. That way the model is fine-tuned for information from that subreddit, and the classification answer from stage 1 can determine which model will generate the sentence. This idea can be explored further if given more time. See Appendix [1] for overall system architecture sketch.

### 3.1 Stage 1 Classifier Architecture

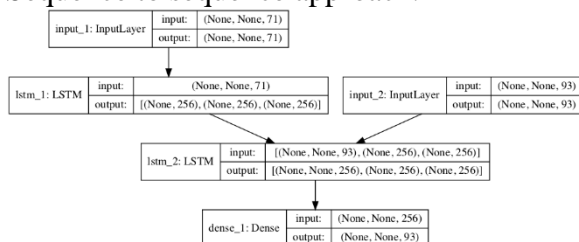


Our improved model consists of an Embedding layer, LSTM layer, 2 feed-forward layers, and an output layer. The embedding layer is populated with pre-trained 100d word vectors from Stanford's GloVe project, where the word vectors were trained on wikipedia text from 2014. The embedding layer feeds into an LSTM. The LSTM uses the

PReLU activation function and Dropout=0.1 to output to a Dense layer. This Dense layer is a regular ANN layer, and it includes an activation function 'selu' with Dropout=0.1, too. The output is fed to another Dense layer that incorporates the same hyperparameters, and that then feeds into the final output layer with activation function softmax. Our model uses adam as an optimizer, with the loss and accuracy using categorical\_crossentropy and categorical\_accuracy, respectively. This output layer is for classification since it has as many nodes as the number of classes were are predicting, and gives a probability for each class. Whichever class has the highest probability, is probably the class we are trying to predict.

### 3.2 Stage 2 architecture

Sequence to sequence approach.



Stage 2 of our project is a text generation model, made up of an encoder and decoder. This model type allows for the input of a vectorized sentence, and for the sequential output for another vectorized sentence. This facilitates dialogue, which is perfect for conversation with a chatbot.

We initially tried with an InputLayer feeding into the encoder, and an InputLayer feeding into the decoder, but we found that adding in an EmbeddingLayer in between the InputLayer and the LSTM layer in the encoder, improved performance of Text Generation.

The two LSTM layers are not really stacked on top of each other, but more sequential to each other. One acts as the encoder, in which its states get passed onto the 2nd one, and the 2nd one acts as the decoder. The final output is a probability list where the indices correspond to word IDs. The Text generation predictor will use inference models based off the encoder and decoder in order to generate words. As the predictor is generating words, the states from the generation are appended to each other and passed into the decoder inference model. This allows for better tracking of previously generated words.

### 3.3 Retrieval-based generation approach

In addition to the sequence to sequence learning approach, we would like to understand how well the retrieval-based approach could achieve by using the reddit data set. In this part, we compare two ways of retrieving comments as responses. This is an alternate method of dialogue that doesn't include text generation. The first one is considered a baseline method. The architecture is simple, we precompute sentence vectors using TFIDF, which results in a vector with about 300k length representing each comment. Upon generation, the input sentence acts as a query in an information retrieval system, with which we compute the cosine similarity between vectors of the query and candidate responses from all subreddit categories. In the second method, we attempt to narrow the searching space of relevant candidate responses by first predicting the subreddit category of the input sentence.

Since in retrieval based generation, the grammatical property of generated sentences are always as good as the corpus. The main concern left would be whether the results are topical. With this in mind, we came up with a revised retrieval method. The second architecture integrates the improved classifier from the previous stage to the system from the first method. The modified system works as follows. It first predicts the

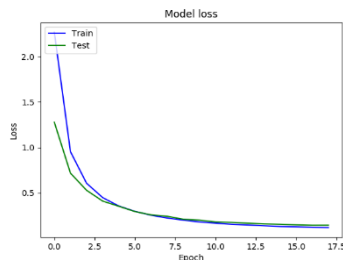
subreddit category of the input sentence with a LSTM classifier, and would then retrieve comments from the specific subreddit using TDIDF.

## 4 Experiments

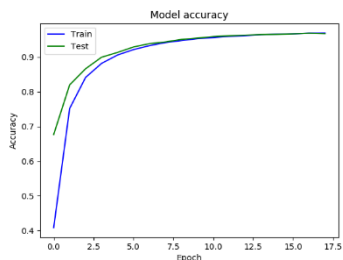
### 4.1 Stage 1 Classifier Quantitative Analysis

Due to computational capacity, we only took 300000 of shuffling comments. 70% of datas are used for training set while 20% and 10% are used for validation set and testing set respectively. Trained for 18 epochs since Google Colab resets runtime every 12 hours.

Baseline classifier model: We use a simple CNN-LSTM model which is extensively applied in text classification tasks, as our baseline model, this model failed to classify 51 sub-class and reached only 6% accuracy. We hypothesized



Our classifier model: Accuracy and loss are illustrated at Model Loss Figure, and Model



accuracy respectively. We can observer that training accuracy and validation accuracy already reached 75% at the second epoch. They gradually increase and converge after 15th epochs. After 18-epochs of training, we reach 96.82% test accuracy and 0.145 loss. The accuracy can be further increased by increasing the training dataset size, and increasing the number of epochs.

### 4.2 Stage 1 Classifier Qualitative Analysis

Analysis by modifying reddit comments, and analyzing the difference in classification probability.

To evaluate the robustness of our text classification model, we predict some modified comments by manually removing some key words, rearrange the sentence or adding some

stop words to interfere the result. We take three sentences respectively from “Guns”, “Food”, “World News” as examples. The result is illustrated at Table 1.

From the result below, it is clear that the probability is high even though we rearrange the comments or add stop words. As for keywords removal, all the three sentences are wrongly predicted to other sub-classes if we remove words such as “super hawk”, “chili”, “germany”, “government”. Another notable comparison is illustrated at Table 2, the two sentences are almost same expect that the latter one miss “germany”. However, the probability is quite different.

Food

	Comment	Result	Probability
Original	wow this is some serious chili	Food	0.99
Remove key words	wow this is some serious	Imgoingto hellforthis	0.34
Rearrange the comment	chili is some wow serious this	Food	0.99
Add stop words	wow go the this are is some am serious to the chili	Food	0.99

Table 1

See Appendix [2] and [3] for tables for Guns and World News respectively.

### Compare Two Similar Comments

	Comment	Result	Probability
1	germany like that way would they keep the government cash flowing it s a the fiasco of epic the proportions	World News	0.95
2	like that way would they keep the government cash flowing it s a the fiasco of epic the proportions	World News	0.51

Table 2

To sum up the advantages and disadvantages of our model, we think this model is capable to extract keywords with high accuracy testing set, even though the comments are re-arranged or interfered by stop words. However, our model is too dependent on key words and ignore grammars. The predicted probability of these modified comments is as high as original comments, which is unreasonable since these comments are asyntactic. To explain this drawback, we

hypothesis that our model learn same bunches of key words by comments under a single thread or a subclass. Moreover, the language on reddit is more colloquial and ungrammatical. It is suitable for reddit dataset but not suitable for general corpuses.

### 4.3 Retrieval based generation (similar comments)

Information Retrieval (IR) system + analysis.

By using the retrieval based sentence generation approach, popular metrics for natural language generation like BLEU are inapplicable since there should be no gold file for Information Retrieval (IR) systems. As the metric MAP(mean average precision) is widely used for evaluation in the IR field. We decide to evaluate our retrieval based generation with MAP at 10, where for each input sentence, we select the top 10 ranked response. Since there is no indicators as to whether each comment is relevant to another readily available from the data, we could only assume comments in the same subreddit category are automatically relevant. By evaluating on 100 randomly chosen sentences from the dataset as input, the system achieves Map of about 0.3. This shows that relying solely on TFIDF vectors might not be powerful enough for finding relevant comments.

By looking at the generation results, we had some interesting observations. As shown in Table 3 we found that given input sentences containing certain frequent terms, the model is able to retrieve similar short( $\leq 5$  word) comments consisting of those terms from various subreddit categories. This shows that the retrieval system exhibits consistency. Furthermore, in some cases, the retrieval system seems to be able to understand the input sentence. Take "nt realize that there are 3 casters soon to be 4 and monte will not be casting every single game" for example, the top ranked results are "twitch", "youtube", "any vods for game one", "are they on youtube". Here, key words "twitch", and "youtube" are common platforms for streaming games, whereas "vod" stands for video on demand, all are highly related to the input sentence even though they never appeared in the input. However, most of the time the retrieved sentences just happens to contain words with higher TFIDF scores that are also in the input, resulting in nearly non-sense.

input	r-1	r-2	r-3
what	general	what	h 2 what

yes	yes yes yes	yes	yes yes yes
that s pretty cool	cool	cool cool cool cool	so cool

Table 3

By evaluating the classifier on the same set of data as the previous method, the classifier achieves a surprising accuracy of 97%. With this nearly perfect prediction of the category we are curious about whether the TFIDF retrieval system can benefit from this. In the following table, we randomly select 10 out of 100 evaluation results and compare the generated responses using both retrieval methods together with the input sentence.

User Input	Rank-1 response from all	Rank-1 response from predicted
edit also not sure if this http iimgurcomn8b6si4jpg was supposed to be some fake brand but it s a thing	i thought this was supposed to be a joke	i thought this was supposed to be a joke
are you in heaven i m jealous of you	i think a better question is why was nt it already taught in highschool	are you five
the drowned god has blessed him with a bouncing baby kraken	hold my beer	kraken drunk is the worst drunk 0

To see more examples, see Appendix [4]

As shown in the table, sometimes the rank-1 response from all subreddits is the identical to the rank-1 from the predicted subreddit. In fact, out of 100 evaluated input sentences, 17 times the two happen to be the same. The overall result suggests that even with nearly perfect category information about the input sentence, the system fails to return relevant responses that can be considered a human-bot dialog. We speculate that the main problem is that the sentence vector constructed with TFIDF cannot fully represent the full meaning of comments on reddit.

### 4.4 Text Generation Results

We were able to implement a sequence to sequence encoder decoder model, with a little success. We trained the chatbot on reddit comments and their reply comments. That way we can compare what the chatbot replies with, and what an actual reddit user replied with.

Training session 1: 1,000 comments and 10 epochs. The model was able to train to 23%

accuracy. As you would guess, the BLUE and GLEU scores are basically 0. The chatbot was only able to generate sos (start of sentence) characters, and nothing more.

## Evaluating results

	User input	Chatbot reply
1	sos if you want a story about melting try jet fuelkun to steel beamschan eos	sos sos sos
2	named madoka for example and i ll give you three guesses as to which nowdead soldier used it first eos	sos sos sos

The training accuracy increased as we increased the number of comments to train on, and the number of epochs. See Appendix [5-7] for more tables on Training sessions 2, 3, and 5.

Training session 5: 24,000 comments at 100 epochs: Able to achieve 87% training accuracy

	User input	Chatbot reply	Target reply
1	sos agil in sao i personally find him the only one in aincrad arc who has a brain eos	sos my i eos,	sos i did nt like oreimo but kuroneko was good eos,
4	and tranquil also interesting how the title is in hiragana instead of katakana considering it s an english title eos	sos seems everyone the	sos great job i would definitely buy one if i had the money eos
5	been about a year and a half since i watched the first season so this is good for me eos	sos that seen holo	sos excited for this can never have enough holo in my life eos

See Appendix [8] for more.

100 comments and their replies from Training session 5. We calculated the BLEU score of 100 reddit comments, their actual replies from other reddit users, and the output of the chatbot. The BLEU scores and GLEU scores were averaged across all 100 entries and compared for our earliest training session, and latest training session. TR1 = Training Session 1.

TR 1: Average BLEU score: 4.8e-232

TR 1: Average GLEU score: 0.014

TR 5: Average BLEU score: 8.04e-157

TR 5: Average GLEU score: 0.022

Our average BLEU score over 100 sentences increased significantly, but it is still much lower than what we would prefer. These results show that our Retrieval based generation performs much better in terms of actual readable and relevant sentences, than our Text generation.

## 5 Conclusions and Future Work

Able to achieve: Text classification model, retrieval-based model based on comment similarity, and text generation model based on sequence to sequence encoder-decoder model. Although the text generation is very subpar.

Not Able to achieve: Apply sequence to sequence model to generate grammatical and semantic reply for users. Our initial plan was to have a fully working chatbot that at least output actual English sentences, but our text-generation model can only output words, and they may not even be relevant.

What changed: Our original proposed project had us use AllenNLP as our ML library, but that changed to us just using Keras with tensorflow backend. We also changed the structure of the project, since our initial report did not include 2 stages. We had just planned to do encoder-decoder, but now we incorporate classification before performing information retrieval or encoder-decoder text generation.

Future Works: If we had more time, we would improve the performance of seq2seq model by implementing an attention architecture [1][2] that would allow the decoder to pay attention in the richer encoding while training. Another option would be transfer learning. We could apply other pre-trained models and then add/modify the structure to fit our need. To improve text generation, would could also look into beam search [7] instead of the Greedy search we did implement. As for features into the classifier and stage 2, we could try using n-gram phrases as features.

Can also improve preprocessing by performing our own preprocessing. Unfortunately, the reddit dataset we used already had preprocessing done where apostrophes, punctuation, and other special characters were already removed. Because of that, we wouldn't be able to differentiate what previous used to be URLs with actual words. So we can improve the data by receiving raw data, and removing URLs ourselves, along with special characters and contractions.



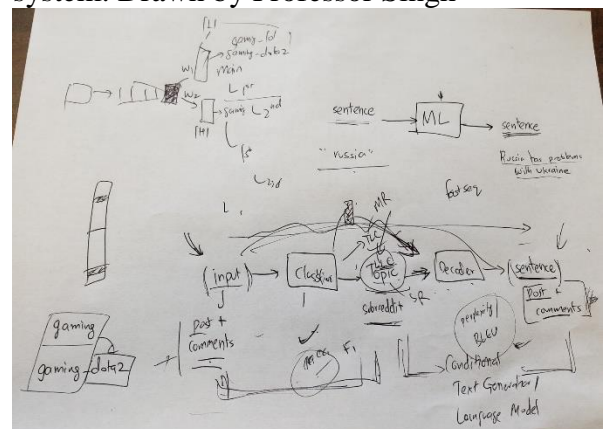
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## A Appendices

- [1] Blueprint outlining our initial chatbot system. Drawn by Professor Singh



- [2] Stage 1 Classifier Qualitative Analysis by modifying comments - Guns

	Comment	Result	Probability
Original	let me buy the browning and the super hawk off you	Guns	0.99
Remove key words	let me buy and the off you	Conspiracy	0.59
Rearrange the comment	super the let me and the buy hawk off you browning	Guns	0.99
Add stop words	let me the buy the browning is and the super are hawk the the off you	Guns	0.99

- [3] Stage 1 Classifier Qualitative Analysis by modifying comments - World News

	Comment	Result	Probability
<b>Original</b>	keep studying in germany because that way they keep the government cash flowing it s a fiasco of epic proportions	World News	0.99
<b>Remove key words</b>	keep studying in because that way they keep the flowing it s a fiasco of epic proportions	tf2	0.79
<b>Rearrange the comment</b>	keep because keep in germany government fiasco way they the epic cash flowing it proportions a of studying that	World News	0.98
<b>Add stop words</b>	germany like that way would they keep the government cash flowing it s a the fiasco of epic the proportions	World News	0.99

[4] Retrieval based system table

User Input	Rank-1 response from all	Rank-1 response from predicted
the man deserves a medal	i m not even american and i m voting for bernie	of the public could truly not give a shit about sports believe it or not it is a minority obsession
you do nt agree with so others can have a chance to see them and not let them be buried	welcome to our community	welcome to the league of draven
why sober instead of something like lateralus for tool	great news	breaking news album has been pirated over 500000 times
how you going to transport that energy throughout the country edit thanks	riding at the track and riding on the street are so different that the word is almost a homonymhomophone	riding at the track and riding on the street are so different that the word is almost a homonymhomophone

for the clarification		
an approaching collision and it will be much easier to figure out how to correct your course to avoid it	to be able to figure out what that part looks like and how to make it and make it function	now she something something bigger on the inside alright that bad joke has been dealt with no more hopefully
a group and never as individuals they were all paid the same from beginning to end got ta respect that	actually there are 721 pok mon got ta catch em all	sugimori s awesome charizard artwork also got ta love how the flame on his tail overlaps the game boy banner
so will cyborgmat t take 1 whole year to get a ticket for the dude who sold his esl manila ticket	that was horrible	that looks absolutely horrible

[5] 16,000 comments and 10 epochs: The model was able to train to 26% accuracy

	User input	Chatbot reply
1	novels and video games what else and what is the weirdest thing for one to be based off of eos	sos eos
2	and get my wife to get me this for my birthday this is amazing and awesome you re awesome eos	sos i
3	sos that was awesome eos	sos is the



[6] 16,000 comments at 30 epochs: Was able to train to 31% accuracy

	User input	Chatbot reply
1	novels and video games what else and what is the weirdest thing for one to be based off of eos	sos eos
2	and get my wife to get me this for my birthday this is amazing and awesome you re awesome eos	sos i i the
3	sos that was awesome eos	sos is i
4	all the other major characters strong amp inspiring while still remaining realistic dio he s motherfucking dio vote dio eos	sos the the the eos
5	sos one punch man is the only one at the top of my head that meets these requirements eos	sos is kanochi
21	sos gt rambling list of reasons validating op s attraction to a cartoon cool story bro http iimgurcomhiqrs8bgif eos	i please moderators messagecompose the eos

[7] 16,000 comments at 60 epochs: Was able to train to 70% accuracy

	User input	Chatbot reply
1	novels and video games what else and what is the weirdest thing for one to be based off of eos	sos eos

2	and get my wife to get me this for my birthday this is amazing and awesome you re awesome eos	sos purchase my my
3	sos that was awesome eos	sos to if the
4	all the other major characters strong amp inspiring while still remaining realistic dio he s motherfucking dio vote dio eos	sos from a the
5	sos one punch man is the only one at the top of my head that meets these requirements eos	favorite gate nite q

[8] 24,000 comments at 100 epochs: Able to achieve 87% training accuracy

	User input	Chatbot reply	Target reply
1	sos agil in sao i personally find him the only one in aincrad arc who has a brain eos	sos my i eos,	sos i did nt like oreimo but kuroneko was good eos,
2	sos unravel kukuku eos	sos the my	ears in the later episodes no comment about the op and ed since i already forget what they are eos
3	sos damn this looks good eos	sos is was would	sos hype is real i was hoping this would get an adaption eos
4	and tranquil also interesting how the title is in hiragana instead of katakana considering it s an english title eos	sos seems everyo ne the	sos great job i would definitely buy one if i had the money eos
5	been about a year and a half	sos that	sos excited for this can

	since i watched the first season so this is good for me eos	seen holo	never have enough holo in my life eos
6	would ve been a few hours flight from japan to egypt into a journey that takes them 50 days eos	to how 2012 team	to see how french frenchington ends up joining the team and if they ever get to finish their meal eos
7	nt think i watched more currently airing stuff until durarara and the tatami galaxy aired like a year later eos	blood yowa mushi my seriously eos	blood and yowamushi pedal at varying points and did nt finish them until a while after they had finished eos
8	any one else think this or can confirm or deny any common key factors thanks again pittman for hosting eos	and guess unders tand of	and they are willing to understand once sora proves herself the characters are all real people not including fool eos
9	sos left side best except for rider got ta vote for rider eos	so mania c the all that eos	so maybe i can get some ideas from all of those who have already made their new style c eos
10	no tabi last exile and steamboy also the legend of korra if it does nt have to be anime eos	sos good	sos fma and gosick eos
11	sos amazing article a lot of the points are the reasons why i love one piece so much eos	again can i is	again and i ll feel like i m back in the thick of the narrative such a wonderful manga eos

12	sos kurosaki ichigo http images5fanpop comimagephotos290000000ichigowallpaperkurosakiichigo290694271024768jpg and kurosaki mea http staticzerochan netkurosakimeafull1689483jpg eos	ton koutarous of on	ton of koutarous but the presence of one https smediacacheak0pinimgcom originals1219ed1219ed717fc2bfce372759bba2fe1cfeg if is enough to make it the most interesting party eos
13	sos as much as i do nt like recommending it rebuild of evangelion specifically 20 defrosts rei a lot eos	do think the	do nt think she typifies the trope at least edit also of course shiraishi is best girl please op eos
14	sos accelerator reason one way road eos	sos s i for	sos shinsuke takasugi why s an eye for an eye eos
15	sos pina colada kanie aisu kyuubu latifah eos	sos it my to	sos straight witches http iimgurcomwpovkuwjpg in outbreak company as a reference to strike witches eos
16	when you see an anime about cute little girls fighting in tanks do you have any other good example eos	sos is who but	they wrote six potential plotprogression ideas and then rolled a die to determine which one they d go with eos
17	sos pina colada kanie aisu kyuubu latifah eos	sos it my to	sos straight witches http iimgurcomwpovkuwjpg in outbreak company as a reference to strike witches eos

18	time ever a couple of hours ago here s the thread <a href="https://www.reddit.com/r/japan/comments/s464491/the_mythology_behind_ringu_looking_for_movies/">https://www.reddit.com/r/japan/comments/s464491/the_mythology_behind_ringu_looking_for_movies/</a> eos	cowboy go that episode	cowboy to a few friends also added the openings of cowboy bebop and noragami to my anime ost playlist eos
19	sos crappily designed amagamithemed one that i should probably update but im way too lazy <a href="http://myanimelist.net/animelist/peengwin">http://myanimelist.net/animelist/peengwin</a> eos	suggestions james i to going eos	suggestions would be appreciated i ve been wondering what would make it easier to read some on the text eos
20	why well it isnt like we are going to get the rest of the canon any time soon eos	myanimelist netanimel151re here amp i think	myanimelistnetanime151re cutie honey short concentrated amp definitely be something that will make alot of people go a bit topsyturvy eos