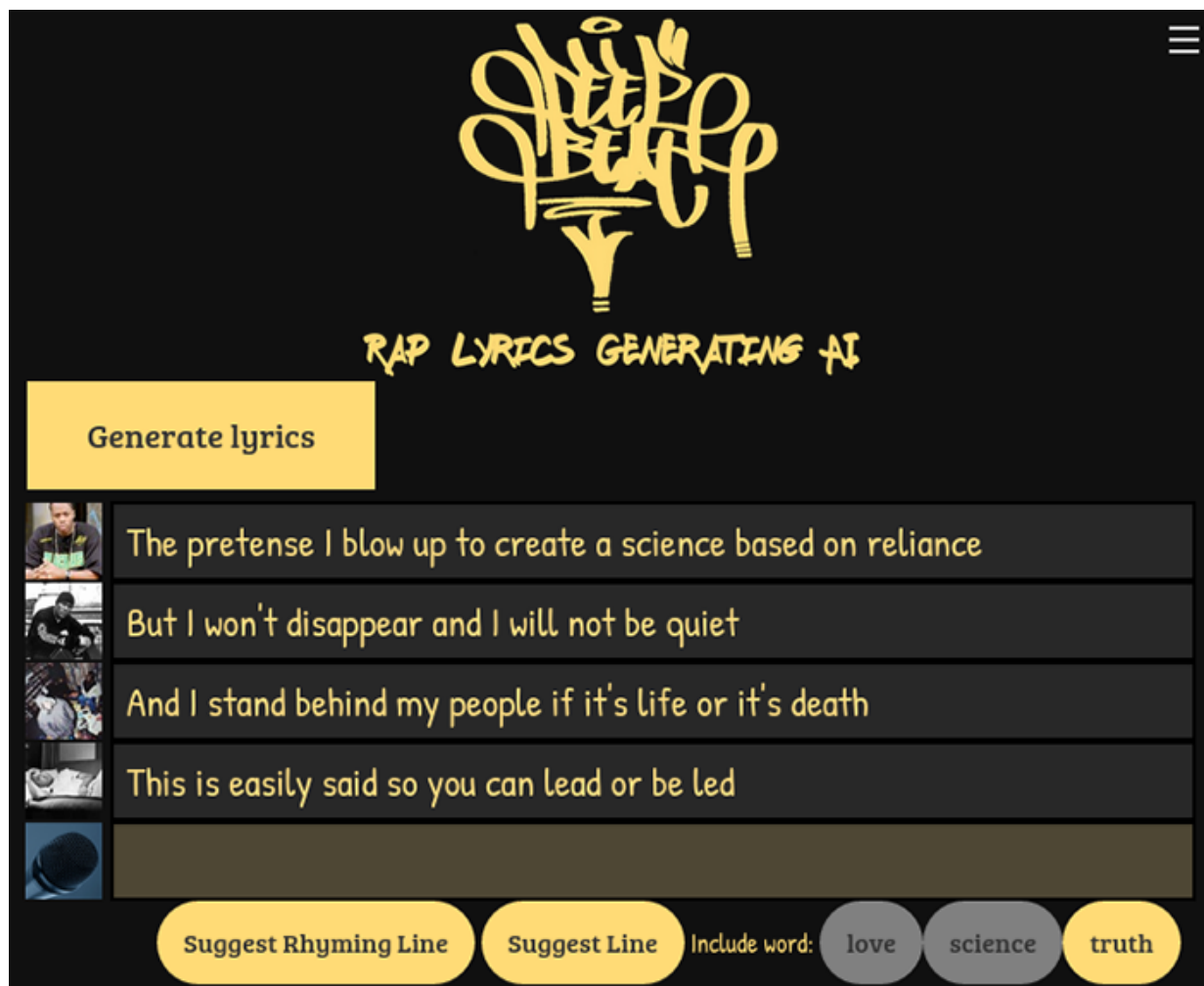


# A rap generator is now available to the public on the Internet

November 5 2015



DeepBeat with lyrics

The DeepBeat is a machine learning algorithm that creates rap lyrics on the basis of huge data masses.

A rap generator DeepBeat, developed by researchers from the Department of Computer Science at Aalto University, HIIT and the University of Helsinki was published online on the 5th of November. Earlier the generator has been only in research use.

The DeepBeat is a machine learning algorithm that creates rap [lyrics](#) on the basis of huge data masses. At the moment in the database there are in total 641 000 lines and 12 500 songs produced by more than one hundred artists in Finnish and in English.

"With the help of the rap generator you can generate a whole new rap verse, which is a combination of already existing rhymes. You and the generator can even produce rhymes with predefined keywords," states researcher Eric Malmi.

In addition, the generator allows you to place your own rhyme in the beginning of the verse. Then the programme will produce a verse matching to it.

"Rap music can be created with the help of a computer rhyme by rhyme - the DeepBeat suggesting the best alternatives for every rhyme. Even though it makes this mostly on the basis of the previous rhyme, the new rhyme must fit in the verse as a whole, too. Still the user makes the final decision," says Malmi.

In the process of choosing one rhyme at a time the generator receives feedback of the user's choices. This data will be used in the improvement of search results, along with as a collection of data for a further use.

"The rap generator can be used for instance in the creation of a customized birthday rap song for a friend. The lyrics can then be shared in the Facebook," continues Malmi.

The rhyme factor of the lyrics produced by the generator are on average 21% higher compared to the best human rap artists who work in English. Still the generator is in the first place meant to be used for the pleasure rather than for the business. Thus amateur rap artists can be inspired by the DeepBeat lyrics. Next to each DeepBeat produced rap rhyme there will be the image of the artist who wrote the line.

**More information:** The rap generator: [www.deepbeat.org/](http://www.deepbeat.org/)

Provided by Aalto University

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