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In Collaboration with

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**Depbot - Early Depression Detection from Online Support  
Forums & Social Networks Using Deep Learning Techniques**

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## ABSTRACT

Nowadays depression and mental problems are not strange things to us because normally everyone felt somehow with these symptoms. With the advancement of technology, there are plenty of treatments, doctors, therapists, and medicines for depression. When someone had this, divide it into simply three stages mild, moderate and severe. Everyone should have experienced mild depression because this comes with normal reasons like when losses someone/something or being angry with someone. This proposed solution will be helpful for the manual process of depression detection. Currently, psychiatrists and physicians are using manual methods to identify the symptoms and level of depression but it's not an ideal process because of some reasons. This modern society most of the depressed patients are trying to hide themselves because of social stigma. They won't admit to get any treatment. The other reasons are the costly and time-consuming process of depression detection.

Considering the above information, the author targets those people on social media sites and gives them a better online solution. Severe-stage depression is a very critical stage for someone trying to suicide themselves. "*Dep bot*" is a web application that will give the ability to early detect depression and recommend the best Consultant Psychiatrists and physicians for the detected results.

The main goal of this system is to design, develop, & evaluate a complementary tool that can support the day-to-day manual process of early detecting & diagnosed depressive symptoms, the system finds the symptoms using neural architecture to search for a given dataset with minimum human involvement.

**Keywords:** Depbot, Natural Language Processing, Early Depression Detection, Data Science, Multiword Expressions

**Subject Descriptors:** Computing methodologies => Machine learning => Machine learning approaches => Neural networks