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Review of Identification of Depression through Speech Analysis

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Abstract: Depression has developed into a crucial worldwide public health problem. This is a common psychological disturbance which affects the individuals physically and psychologically which leads to neurological illness. This effects on people in any age category. These makes researchers to work on this field so much. Traditionally, depression identification is performed by using semi-structured interviews of an individual and additional personality inventories that makes detection of depression is heavily depend on individual's response. Early treatment and identification of depression is needed to promote remission, prevention of relapse and decreasing an emotional tension of the disorder. It is difficult to detect depression at early stage of it using traditional processes. Studies in improvement of computational objective approaches indicates that speech signal of a speaker shows valuable relationship between depression and speech. Hence these acoustic features are used for diagnosis of depression. Enhancement in machine learning and deep learning techniques makes understanding of depression characteristics more rapid and convenient way which reduces the changes of clinical mistakes and labour costs. This paper shows study of various depression detection system or feature selection methods used by researchers in this field. This makes to detect depression at early stage and can be cured faster.

Keywords: Speech, Depression Detection, Voice Quality Features, Machine Learning, Emotion, Deep Learning.

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