

Suicidal Ideation Detection: A Review of Machine Learning Methods and Applications

ABSTRACT:

Suicide is a critical issue in modern society. Early detection and prevention of suicide attempts should be addressed to save people's life. Current suicidal ideation detection (SID) methods include clinical methods based on the interaction between social workers or experts and the targeted individuals and machine learning techniques with feature engineering or deep learning for automatic detection based on online social contents. This article is the first survey that comprehensively introduces and discusses the methods from these categories. Domain-specific applications of SID are reviewed according to their data sources, i.e., questionnaires, electronic health records, suicide notes, and online user content. Several specific tasks and data sets are introduced and summarized to facilitate further research. Finally, we summarize the limitations of current work and provide an outlook of further research directions.

SYSTEM REQUIREMENTS:

HARDWARE REQUIREMENTS:

- System : Pentium i3 Processor.
- Hard Disk : 500 GB.
- Monitor : 15'' LED
- Input Devices : Keyboard, Mouse
- Ram : 4 GB

SOFTWARE REQUIREMENTS:

- Operating system : Windows 10.
- Coding Language : Java
- Web Framework : Flask

REFERENCE:

S. Ji, S. Pan, X. Li, E. Cambria, G. Long and Z. Huang, "Suicidal Ideation Detection: A Review of Machine Learning Methods and Applications," in IEEE Transactions on Computational Social Systems, vol. 8, no. 1, pp. 214-226, Feb. 2021, doi: 10.1109/TCSS.2020.3021467.