

**ANALYSIS ON THE NEED OF SUICIDE ALERT SYSTEM**

*Sara Khan*

*Department of Computer Science, Deen Dayal Upadhyaya college, University of Delhi  
New Delhi, India  
saradelhi29@gmail.com*

*Upma Gandhi*

*Department of Computer Science, Kalindi College, University of Delhi  
New Delhi, India  
upmagandhi01@gmail.com*

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*Abstract*

*Under section 309 of Indian Penal Court, suicide is illegal and a survivor could face a jail term of up to one year and a fine but that's not enough for a person who's suffering from lack of hope to not try to commit suicide. Technology has become the friend of death in this case as the people often search for the methods to die before committing suicide. Although browsers like Google, Yahoo and Bing have taken some steps to discourage such hideous crime but according to the statistics, they are definitely enough. This research paper analysis the approach of different browsers as well as discusses the methods they could not prevent the person to take his/her life but to show the path to get help from professional that could bring back the lost hope.*

*Index Terms – Suicide, prevention, tracking, search engines, search results.*

**I. INTRODUCTION**

Every year, we encounter more than 1,00,000 tragedies of suicides in our country. The number of suicides in the country during the decade (2005–2015) have recorded an increase of 17.3% (1,33,623 in 2015 from 1,13,914 in 2005) as per reports [1]. In early times, nobody could think of tracking a suicide. But now with the advancement and use of technology, which has become a part and parcel of our life. People refer to search engines for the tiniest of the things and pour their heart out at social media. At the same time, these instances of online technology can help us in detecting the suicide attempts and alerting or preventing them. As in many cases, the victims have searched thoroughly on the search engines before committing suicide and in many cases, they have given warnings through statuses, pictures in social media. Thus, technology can help in saving the lives of these people. The growing cases of suicides day after day and the role of technology that plays, forces us to think of a system that protects the victim from committing such a disastrous sin. Even if you save one life, the system was worthy enough. But before that how effective are the current systems? What challenges are they facing? Do we require a new system to cater the needs? What will be its hurdles? Thus, this paper tries to answer these questions.

## II. INSIGHT INTO EXISTING METHODS

### A. Search Engines

New Generation is the internet generation which uses search engines for almost everything from education, medical advices, directions to even answers to emotional problems. According to the report published in National Crime Records Bureau [1] under the heading "Accidental Deaths and Suicides in India 2015" claims that Middle aged people (30 and above- below 45 years) and Youth (18 and above- below 30 years) were the most vulnerable groups resorting to suicides. Teenagers also have a huge proportion in suicides attempts. These are many cases registered recently that shows that the committer searches for the methods before committing this terrible crime. Hence, the below points show some light on the measures adapted by the search engines to prohibit the knowledge of suicide methods.

#### 1) Google

Being the most popular search engine, 75% people keep Google as their primary search engine on desktop. Due to this, the person who is trying to commit suicide has a larger chance to search methods to kill themselves on this browser. The case of Isha Handa committing suicide in Bengaluru last year cites an immense need of a system. According to the reports by various news media [2], her browsing history of last 48 hours revealed that she had searched on Google about "How to commit suicide" and "best method to do so". The report [3] also tells that she was planning the most effective method and has gone through 89 websites over those last two days. Her media access revealed that she had researched enough on these platforms so that there is no chance of her to save.

Though Google has taken a bit of measures, if a person searches for "I want to kill myself" a helpline number of organizations that can aid these people comes up. And the next few links are more pertained to not to kill yourself. Recent case of a 24 year -old girl from Bareilly [4], who wanted to end her life but in order to have easier ways she googled on "How to commit suicide". But seeing, the helpline number as the first link, she reconsidered her thought and ended up calling to the deputy inspector general of police who able to convince her. Thus, Google saved a life too.

Unfortunately, Google shows the helpline number for the particular country of the user but that is barely enough. Many sites show suicide methods on their first page. Although some sites do warn that search results are only for research but if a person really wants to find methods then he/she will definitely will get it. High possibility should mean high responsibility of Google to take required steps to alter the decision of that person. But these measures are still inadequate to combat this. Many times, the victim is in unconscious state and ignore these initial links and those in between the text of websites.

#### 2) Bing

Bing browser is the next highest percentage holder of market share. Although having much less proportion it's similarly equipped to provide resources to handle searches related to suicides. It shows similar results which concludes that the websites do contain painless methods to die but with the warning and links in between. If a user intended to die, then he/she can just ignore the links and helpline numbers.

3) **Yahoo**

With one billion monthly active users and 204 monthly unique visitors, Yahoo have a considerable share in search engine market place. In the article [5], where they have searched using different permutations of expected words. Similarly, on analysing a set of strings we found that for the strings like "I want to kill myself" or "I want to die", it hardly shows any negative results initially. The initial hyperlinks are more pertained to consoling the victim to not commit such a disastrous task. But with phrases like "How to commit suicide", unfortunately it shows the best ways to commit suicide. This contrasts Google which shows a helpline number in this case. But for the words like "suicide methods", it displays the helpline of National Suicide Prevention Lifeline as its first link followed by the direct results. While such sites may be highly ranked in terms of internal algorithms, they're dangerous results for desperate people, illustrating that for certain kinds of searches, the search engines giants need to really pull up their socks for prohibiting this heinous task.

**B. Social Networking Sites**

Social media platforms have become an integral part of everyone's lives. People share their moods, feelings, reactions etc. heavily. The gap of these abstractions that were once pertained to a person and the analysis of sensitivity has been reduced with the era of pouring out these abstractions on these networking sites. As the psychology says that the depressed feel better when he discusses his sadness, despair and gloominess. Thus, here is when social media comes into the picture which acts as a virtual friend or a platform where he pours his heart out. The two most popular sites Facebook and Twitter provide tools for suicide prevention.

1) **Facebook**

From helpline numbers to healing the victim, Facebook acts like an angel for the victim by its suicide prevention tools [6] but only on the condition that the victim approaches it. But we see it hardly, when a victim approaches. Thus, the new development of Facebook of having its own suicide alert system is appreciable.

**FACEBOOK SUICIDE ALERT SYSTEM**

Facebook has developed a new system to try and identify and help users having suicidal thoughts with the help of sentiment analysis. The new features include a drop-down menu to flag posts as suicidal. These reported posts will be expedited to Facebook's team of evaluators that analyze all types of reported content, and if deemed suicidal, both the reporter and the person who posted the content will be met with a variety of options [7].



Figure 1(Snapshot of the new feature posted by Facebook Safety)

If someone reports a suicidal friend (Fig. 1), they will receive information on ways to communicate with their friend, and resources and contact information for suicide prevention. The person who posted the self-harm content will receive a notification page the next time they open Facebook, letting them know someone reported their content as potentially harmful as well as supportive tips, such as contacting a friend or helpline [8].

The idea is philanthropic in its core. They have worked with mental health organizations Forefront, Now Matters Now, the National Suicide Prevention Lifeline, Save.org and others on the updates, and consulted with people who had lived experience with self-injury or suicide to bring this idea into picture. This was initially available in the U.S. but they will be rolling out globally to help people recognize and report potentially harmful behavior. Although this system has many advantages, it has its own challenges. Youngsters can misuse it for annoying people or just use it to play a prank clogging up the system. People with chronic depression will be hardly benefited.

## 2) Twitter

Like Facebook, which has worked really hard in dealing with social issue like this, Twitter also provide tools for dealing with self-harm and suicide. As per the information [9], after assessing a report of self-harm or suicide, Twitter will contact the reported user and let him or her know that someone who cares about them identified that they might be at risk. Then, they will provide the reported user with available online resources and persuade them to seek help. Although they themselves don't have any mechanism to keep a check on tweets having suicidal content.

Further there are instances of social bully too which causes many people to commit suicide. The case of a

16-year-old girl Jessica Laney in Florida, who committed suicide at her home in Florida. As per the reports [10], she was constantly bullied on a media site ask.fm where people ask you anonymous questions.

## III. FUTURE POSSIBILITIES AND CHALLENGES

The work in this domain has been very underestimated. A little has been done in this arena. An automated suicide alert and prevention system is the need of the hour. Accessing user browser cache for retrieval of their search history can be beneficial but at the same it will also be a breach of

privacy. An automated system should be able to differentiate among those who are the actual victims, those who are just pranking or playing with system and also the ones who are experimenting data as a research work. Unless the line of differentiation is clear, a lot of efforts and time will be wasted in running after the false or wrong victims. The system should also track I.P. Address that act as a unique identifier on this internet for following up the victim or it can further send it to the police. It should be a real-time processing and should be as fast as possible because here a difference of a nanosecond can save someone's life. The points to consider in social networking sites is the unclear context which can be confused with the real warning from depressed person intending to take his/her life. The phrases like "I am going to die" or "I am dead" are like the common sentences people use in situation where something goes wrong or they did a mistake. Hence using the words like "kill myself" will not help the social networking sites to differentiate clearly. To tackle this issue a collaboration is required with both the search engine companies and social networking companies in order to ensure the correctness of detection by double checking with the search history with the search engines. This will smoothly rule out the people who for fun post status with the words like death or kill on their pages.

#### **IV. CONCLUSION**

- Seeing everyday cases has created a need to develop a suicide alert system to save the lives of these innocent people who lost hopes and get themselves entangled in these false baits of giving up everything. The recent increase in cases have shown that the suicide victims search a lot before committing this sinful act.
- Whenever a person searches for suicidal methods, then the browsers must need to track the IP address and find out the identity of that person. Then it can link up with the country wise helplines and simply send them a notification. This will lead those organizations to call the person and try to convince him/her by giving the reasons to live or others methods they follow to give hope.
- If person is not reachable then alert the police. This will positively prevent the person in time from committing suicide.
- Social media bullying that is considered one of the factors that people commit suicide. The same media can be used as preventer of such disastrous attacks. Facebook has tried to achieve it but it has own set of challenges.
- Technology is capable to do anything in this century hence any challenges are not difficult enough to stop the effort to save a precious life.

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