

## Idea Extended

24\*7 shield basically uses the concept of semantic analysis of the conversation by using deep learning models (Matches with the keywords that denotes danger) and classifies chat as –

- Normal talk
- Healthy talk
- Domestic Violence
- Rape
- Child Abuse
- Criminal Act

If it's not normal or healthy chat (continuous monitoring), it quickly sends messages to family members and nearest police station exactly with the location and type of problem, with the chat summary and some part of voice so that culprit can easily be detected.

### Why is this the best method among other available methods?

1. In case of child sexual abuse, children can't react to such situation, also they can't understand what going on with them. So, any other type of detection mechanism will not work thus only speech analyzation is possible to detect and prevent child sexual abuse.
2. In case of Rape, Criminal activities, domestic violence etc., before any harm with the conversation only, we can detect the upcoming situation thus police and other family members can take necessary steps to prevent that person.
3. No need to press any button to "on" the device, it continuously monitors the conversation thus even if the person is in unconscious state with the talk of culprit some identification can be made.
4. Easy detection of culprit is possible. Criminals voice database could definitely be saved by police, thus before any act, if police recognizes by the summary and voice supply by the device (24\*7 shield) and call the culprit, murders can be saved.

**Extensions:** This device can even be used to detect **depression**. As a person even doesn't understands when he is in normal state and when in depression. So, with the help of this device, he can understand himself and take necessary action to get out of depression, thus better productivity.

**Varieties of language Analysis- Native language support:** The device gathers speech in any native language then uses Microsoft text moderation for any native language support, analyses it and summarizes it into both English and native language and sends the voice note in native language(as it was originally in native language- this part remains unaltered) so that family members can understand.

**Emotion Analysis:** Sometimes, the chat between husband-wife or girlfriend-boyfriend seems offensive, in such situation a better classification based on emotion detection is used. Since chat between them can even be a case of sexual assault as in domestic violence or pleasing moment talk so proper classification is important. Other mis-classification will occur and wrong notification would be there.

**Data Collection:** Arranging key words for all these acts that helps in triggering and analyzing the semantic analysis of conversation is difficult. However, for initial training of the system, we can get some help from

- Doctors
- Police Station
- Victims
- Family members
- Culprits (Torturing)
- Documentaries
- Psychologists
- Internet Stories

Look for regional/native keywords also, may be in text moderation we would miss some words, so even look for native language synonyms also.