## Solution

24\*7 shield uses Microsoft azure and it converts speech to text (Support for all regional languages) for semantic analysis thus it needs a device with microphone to capture voice. It continuously monitors the conversation and if finds anything offensive thus informs the caregivers.

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.

The Device with the microphone + GPS/connected GPS snoops the ongoing chat/conversation



Now, Microsoft azure speech to text API is used to convert speech into text



Over the Text -> Semantic analysis/ Full-text search/Text analytics is done using **Semantic analysis API**. Continuous monitoring is done, its not like chat is stored and then analyzed, monitoring and storing + analyzing at same time. If no danger, delete that part of chat.



We can use certain **set of keywords that denotes danger**, if chat consists of some words among them then better classification can be done among the type of act.



For regional/native language support, we can use **text moderation API**. Also, keywords stored to match is collected in all regional languages + some specific words of that regional languages that has offensive meaning.



Perform **semantic analysis** (with **high emotional analysis + Mood** so as to avoid some misclassification like gf-bf conversation etc.). Use **deep learning models** to improve the accuracy of predictions.



Classify the chat as – Normal talk, Healthy talk, Domestic violence, Rape, Child Abuse, Criminal Act, Depression (Inform to user + someone he added to send message only in depression class) etc.



If it's not normal/Healthy chat, **send a message** to the Caregivers/Family members/Friends + Nearest Police station with the **summary** of the Categorization of the act (**Using summarization API**) along with the **location** and **some part of voice** of culprit is sent to recognize him.

In early stages, some training is needed but as the system gains experience its accuracy will become quite high.

Thus, early detection of ongoing incident is possible and losses can be prevented. Thus, we need only a device with microphone and GPS, even the device with the facility of GPS connected will work. Rest, we need only microsoft azure API's, that's it, we are done!!

Many other sensors can be used as add on to detect some new functionalities but this is the cheapest and optimal device possible exploiting most of the features and affordable.