### Suicidal Event Detection - Annotation Guideline

#### 1. Introduction

In this work, we attempt to identify events related to *Suicidal Behaviours* in publicly available posts taken from the r/SuicideWatch, r/depression, and r/mentalhealth subreddits.

The definition of what constitutes an **event** will be slightly different from other similar event-annotating projects. This is mainly due to the way texts in this domain are redacted: 1) posts are mostly written in the first person perspective and are highly informal; and 2) it is very common for the authors to make statements about their feelings and their current mental state rather than describing actual events happening in the physical space.

In this sense, we are not interested in tagging all of the events present in the posts. Instead, we only care about a particular set of types and subtypes which are described in the following section.

### 1.2 Relevant resources

Resource	Link
Annotation Guideline	<u>Guideline</u>
Annotation Tool Interface	Annotation Interface (BRAT)
Annotation Tool Tutorial	<u>Video tutorial</u>

# 1.3 Important disclaimer

We advise some caution due to the nature of the documents dealt with in this project. The relevant posts are sometimes very explicit and usually contain sensitive subjects such as violence, abuse, death, discrimination, etc. Please keep this in mind when applying for the job.

## 2. Event categories and examples

This section describes the relevant event types alongside representative sentence examples. It is meant to showcase some type-specific annotation examples and solve some potential confusions.

Please **read through these carefully** and let us know if you have any questions.

We are using the following color coding for the ACTION, IDEATION, RF-LIFE, RF-RELATION, RF-HEALTH, RF-OTHER, and PROTECTIVE types.

## a) Suicidal action - Label: ACTION

This category includes any event of an individual engaging in actions that bring them closer to dying by suicide. These include any previous suicide attempts, preparatory acts towards a future attempt, or self-inflicted violence.

A previous **suicide attempt** is a self-inflicted, potentially injurious behavior with an intent to die as a result.

"I tried to kill myself last night"

A **preparatory act** consists of any acts of preparation toward making a suicide attempt. Must be beyond verbalization or thought such as assembling a method (e.g. buying a gun, collecting pills) or preparing for death (e.g. writing a suicide note, giving personal possessions away).

"Just looked online for the quickest way"

We consider **self-inflicted violence** as a self-directed, harmful behavior that does not have a clear intent to die as a result.

• "I've started **cutting** myself again"

When annotating this type of event, it is important that an actual action takes/took place and that it goes beyond verbalization or intent. As such, sentences containing these events mainly talk about the past or about ongoing situations.

• "I **left** a note for my parents" - Preparatory act

### b) Suicide ideation - Label: IDEATION

Contrary to the previous category, these events focus on expressing thoughts and feelings but no actual action is present. It includes both *passive thoughts* about wanting to be dead or *active thoughts* about killing one self. These, however, are not related to actions such as preparatory acts and, instead, refer to verbalizations of inner feelings/desires.

- "I wish I was dead" (passive)
- "I'm going to **kill** myself soon" (active)

Some common verbs associated with this category are: want, wish, think, feel, etc.

### c) Risk factor (RF)

External/environmental events that increase a person's susceptibility to suicidal behaviours. We consider 4 different subcategories:

- Loss of Life Label: RF-LIFE
  - This risk factor event is easy to identify as a loss of life must be explicitly or implicitly present. Also remember that loss of life encompasses entities other than humans.
    - "My dog just died, he was my only real friend."
    - "After my brother killed himself..."
    - "My grandma has been gone for years now" (implicit)

### Loss of Relationship - Label: RF-RELATIONSHIP

- These include events such as social isolation, family breakdowns, divorce, etc. Include in this category all events that show a loss of connection with other people. These can be both verbalization of feelings of isolation or actual incidents of loss of an interpersonal relationship such as a break-up or argument with another individual.
  - "I don't have anyone to talk to"
  - "My dad just kicked me out of the house"
  - "After my divorce, I started drinking" 2 events present

## • Health - Label: RF-HEALTH

- This includes any factor that negatively affects the physical or mental state of an individual. Risk factors in this category include explicit mentions of physical/mental ailments/diseases and behaviors that directly affect a person's physical health.
  - Mental disease/disorder such as depression, PTSD
    - "Can't deal with my depression right now"
    - "I've been diagnosed with BPD"
  - Chronic or long-term disease/pain and disability
    - "I'm just giving into my eating disorder"
    - "On top of all, my diabetes has been acting up"
  - Misuse and abuse of alcohol or other drugs
    - "I've been drinking a lot lately"

#### • Other - Label: RF-OTHER

- These events include all other risk factors that do not fall into the LIFE, RELATIONSHIP, or HEALTH categories. As such, these can be events of very diverse natures such as financial issues, chronic abuse, discrimination, or general quality of life problems.
  - "Can't afford to pay rent anymore, don't know what to do next"
  - "I can't go back to jail now"
  - "Lost my job today"
  - "They **tease** me in school cause I'm gay"

# d) Protective factors - Label: PROTECTIVE

These events are related to capacities, qualities, environmental and personal resources that increase resilience; drive an individual toward growth, stability, health, and/or an increase in coping with different life events.

For this category, please annotate any sentence that showcases a positive impact on an individual. These can be verbalizations of self-worth and willingness to get better, access to medical resources, positive personal relationships, positive cultural beliefs, etc.

- Access to effective behavioral health care and medication.
  - "My therapist says that I should talk more"
  - "The medication seems to be helping"
- Connectedness to individuals, family, community, and social institutions
  - "At least my friends are there for me"
- Life skills (including problem-solving skills and coping skills, ability to adapt to change)
  - "I've always been good at helping people"
- Self-esteem and a sense of purpose or meaning in life
  - "My life is much better than billions of people"
- Expressing a willingness to improve
  - "I really want to get better"
  - "I wanna be funny and outgoing"
- Cultural, religious, or personal beliefs that discourage suicide
  - "I know God disapproves of what I'm thinking"

### 3. General annotation guidelines

This section describes some general annotation rules that apply for every event type described previously. Again, please **read these carefully** and contact us if you have any questions.

- a) We are interested in annotating the **event trigger**. A *trigger* is a word, or phrase, that most clearly expresses an event's occurrence.
  - "Just looked online for the quickest way"
- b) Tense is not important as we are only interested in the subjacent meaning.
  - "I thought about it for so long"
  - "I've been thinking about it for so long"

However, in some cases, tense will change the meaning of the sentence and, thus, the type of event.

- "I have a lot of friends" shows a positive environment
- "I had a lot of friends" shows social isolation
- c) Triggers, for the most part, will be related to the *verbs* in a sentence. However, they can also be *nouns*, *adjectives*, or *adverbs*.
  - "I can't go back to **jail** now" (noun)
  - "My family is **nice**" (adjective)
- d) When in doubt, a good rule of thumb is to only annotate what you consider the most important words. Some commonly confusing constructs are:
  - i) The trigger is a negated verb: ignore the negation and annotate the verb.
    - "I can't handle my depression."
  - ii) The trigger is a verb-particle construction: only annotate the main verb
    - "They keep putting me down."

- "My friend usually comes over."
- e) When a verb is accompanied by an infinitive, select the main verb:
  - "Nothing seems to matter"
  - "I was forced to keep my mouth shut"
- f) If two events appear in the same sentence, annotate both of them
  - "I want to die but I have kids."
- g) When dealing with the verb '**to be**', select the accompanying adjective/adverb. Otherwise, select the main verb.
  - "I am depressed."
  - "I feel depressed."
  - "I've been good for a while"
- h) If you are **unsure** that something represents an event, it is preferable to **annotate it** rather than not. This increases our chances of finding actual events as we'll rely on annotator agreement for event identification.

### 4. Supplemental Notes

As we are working with informal texts, you should expect some of the following issues to be present:

- Misspelled words.
- Incorrect/missing punctuation.
- Incorrect/missing capitalization.
- Incomplete/nonsensical sentences.

We appreciate dealing with instances of these issues in the best way you possibly can.

#### 5. Additional annotation examples

This section includes some annotation examples of actual post samples taken from r/SuicideWatch, r/depression, and r/mentalhealth. Use these as references when doing your own annotations and let us know if you have any questions.

You can find additional annotation examples in the "examples" folder in the annotation tool.

## Example 1

#### Text:

Honestly I am so damn boring. Like.. its a main reason why I don't date anyone and never will. Its a reason why I have no friends and never will. Nothing really interests me so I don't have much to talk about. I suck at all conversations and once again I'm so boring. When i was a kid I had a personality I was funny and goofy and happy. Now I'm just a dead zombie that will laugh at things in public to not seem depressed. But my brain is so dead from depression I can't come up with any jokes or shit. The only thing I can do is listen and barely speak which I actually hate. I wanna be funny and have a personality and be desirable but I'm not that. I know its depression that causes it.

### Label explanations:

Trigger	Туре	Notes
boring	RF-OTHER	Negative self image. Verb to be.
date	RF-RELATION	Isolation verbalization.
have	RF-RELATION	Isolation verbalization.
suck	RF-OTHER	Negative self image.
boring	RF-OTHER	Negative self image. Verb to be.
depression	RF-HEALTH	Ailment. Verb to be.
wanna	PROTECTIVE	Verbalization of desire to improve.
have	PROTECTIVE	Verbalization of desire to improve.
desirable	PROTECTIVE	Verbalization of desire to improve.
that	RF-OTHER	Negative self image. Verb to be.
seem	RF-HEALTH	Explicit ailment mention.
depression	RF-HEALTH	Ailment. Verb to be.

## Example 2

#### Text:

yes, let's fucking tell the people who have spent probably years in immeasurable mental pain who will literally defy all survival instinct to stop feeling the pain that they're SELFISH. do people think we come to this conclusion easily and that we're just "giving up"? do these people realize how long we've tried to fight and rationalize being alive because we don't want to hurt those around us, finally to stop be every single fucking day is a fucking agonizing hellscape that gets WORSE? people will be so quick to tell you that you're selfish and over dramatic but they are not the ones trapped in this horrible mental and physical existence, they can easily walk away from me but i can not walk away from myself, why can i not even commit the one and only act that i know will bring me peace without the crippling fear that it won't be successful and i'll have to deal with my family's scrutiny and judgment? i was literally brought onto this earth be my mother needed to save her marriage (unsuccessful) and as i'm sure all of us agree with on here, i did not ask for it nor do i want any fucking part of it. so why do i feel this overwhelming guilt that comes with every single suicidal thought i feel?

Trigger	Туре	Notes
spent	RF-HEALTH	Mention of ailment: immeasurable mental pain.
tried	PROTECTIVE	Verbalization of willingness to improve.
want	PROTECTIVE	Verbalization of care for others.

hellscape	RF-OTHER	Negative environment. Verb to be.
trapped	RF-OTHER	Negative environment. Verb to be.
commit	IDEATION	Verbalization of desire to suicide.
feel	IDEATION	Verbalization of suicidal thoughts.

### Example 3:

#### Text:

over the last years i went to so many doctors, clinics and just anyone they told me, might can help me and i was just send in circles and circles and circles

the only help i got, didn't help

i have just no one to ask anymore

and no will to fight

i am just dragging along and go day by day

fighting the seductive voice that tells me

how easy it would be to end it all

## Label explanations:

Trigger	Туре	Notes
went	PROTECTIVE	Access to medical resources.
have	RF-RELATION	Isolation verbalization.
fighting	PROTECTIVE	Verbalization of desire to improve.
end	IDEATION	Verbalization of suicidal thoughts. Verb to be.

## Example 4

### Text:

I have thought about it a lot, but I have been able to hold myself back. Life is just getting to stressful, online school is too hard I'm in all advanced classes, I have ADHD, my sister is 3 and VERY SPOILED and screams at the top of her lungs when shy doesn't get what she wants, my brother is a jerk, my mom screams at the top of her lungs If I do the smallest thing wrong and then takes things that I GOT A JOB SPECIFICALY TO GET IT, don't even get me started on covid. My family is nice but they are very stressful I cold go on and on about my life but that's not the point I'm tired of the stress. I've gotten very close in the past month or two. I haven't told anyone. I've sliped into a desperation and its not easy for me to talk about this. I don't know what I'm asking for but please tell me what to do.

## Label explanations:

Trigger	Туре	Notes
thought	IDEATION	Verbalization of suicidal thoughts.
hold	PROTECTIVE	Verbalization of resilience.
getting	RF-OTHER	Negative environment.
have	RF-HEALTH	Ailment mention.
nice	PROTECTIVE	Positive environment. Verb to be.
gotten	IDEATION	Verbalization of suicidal intent.
told	RF-RELATIONSHIP	Verbalization of isolation.
slipped	RF-OTHER	Verbalization of negative mental state. Mispelled.
tell	PROTECTIVE	Verbalization of willingness to improve.

# Example 5

### Text:

I'm honestly so depressed that I'm contemplating suicide once again. I was feeling really good a couple weeks ago but unfortunately I feel terrible again, I feel like hurting myself.

# Label explanations:

Trigger	Туре	Notes
depressed	RF-HEALTH	Ailing mention. Verb to be.
contemplating	IDEATION	Verbalization of suicidal intent.
feeling	PROTECTIVE	Verbalization of positive mental state.
feel	RF-HEALTH	Verbalization of negative mental health.
feel	IDEATION	Verbalization of self-harming intent.

## Example 6

### Text:

nowadays I just can't feel nothing and I don't give a fuck if I die (because I wanna die). For example if I were in my school and there were school shooting, I would most likely to just sit and watch what happens, I just don't fucking care anymore.

# Label explanations:

Trigger	Туре	Notes
feel	RF-OTHER	Verbalization of negative mental state.
die	IDEATION	Verbalization of suicidal intent
wanna	IDEATION	Verbalization of suicidal thoughts.
care	RF-OTHER	Verbalization of negative mental state.

# Example 7

## Text:

I just want to die but I have kids

# Label explanations:

Trigger	Туре	Notes
want	IDEATION	Verbalization of suicidal intent.
have	PROTECTIVE	Connectedness to other people.

## Example 8

## Text:

I hate myself. I'm going to kill myself soon. I haven't set a date, but I know that I'm going to jump off a bridge and I know it's going to be soon. I'm going to stay true to my word here and do it. This is not a cry for help, this is a promise. There's no saving me, I hate myself.

Trigger	Туре	Notes
hate	RF-OTHER	Verbalization of negative self-image.
kill	IDEATION	Active suicidal intent verbalization.
jump	IDEATION	Active suicidal intent verbalization.
soon	IDEATION	Active suicidal intent verbalization. Verb to be.

do	IDEATION	Active suicidal intent verbalization.
promise	IDEATION	Active suicidal intent verbalization. Verb to be.
hate	RF-OTHER	Verbalization of negative self-image.

## **Example 9**

### Text:

I think to suicide because I lose my mother she died 4 weeks ago I can't breathing I want my mom

## Label explanations:

Trigger	Туре	Notes
think	IDEATION	Verbalization of suicidal thoughts.
died	RF-LIFE	Explicit loss of life mention.

## Example 10

## Text:

I want to tell somebody about my feeling and my thoughts, but I don't have anyone to tell to, I have a lot of friends, but I have a feeling the won't accept me and I'm the typical 'happy' and 'funny' friend so they don't expect me that way, and my family they are very strict and don't care about mental health they only care about my grades. So that I have a good job later, that job will never come I will be dead by then.

Trigger	Туре	Notes
want	PROTECTIVE	Willingness to connect with people.
have	RF-RELATIONSHIP	Verbalization of isolation.
have	PROTECTIVE	Connectedness to people.
friend	PROTECTIVE	Connectedness to people. Verb to be.
care	RF-OTHER	Negative environment.
dead	IDEATION	Verbalization of suicidal thoughts.

### Example 11

### Text:

I've (f24) struggled with major depression for a few years now, and been on countless medication to no avail. I'm stuck in a terrible job which I hate and its making all that much worse. I have tried for the past 2 years to move jobs and had no luck, it's getting to the point now that if I stay much longer I can see myself committing suicide. I have an amazing partner (4yrs together, we bought a house and are thinking about kids) he is so understanding, kind, forgiving, and I seriously don't deserve him. I feel like I should be doing so much better, I should have a better job, I should have my shit together, I should be better for my partner, its suffocating thinking about all the ways I am inadequate. Sometimes I have these mini break downs, where I can't stop crying, it's hard to breath and I can't stop uncontrollably shaking all over, they're becoming more common. The only thing stopping myself from suicide is how it would effect my partner, I know he would be devestated, but sometimes it's just too much and I don't know what to do.

Trigger	Туре	Notes	
struggled	RF-HEALTH	Explicit ailing mention.	
medication PROTECTIVE Access to medical reso		Access to medical resources. Verb to be.	
stuck	RF-OTHER	Negative environment.	
hate	RF-OTHER	Verbalization of frustration.	
making	RF-OTHER	Negative environment	
committing	IDEATION	Verbalization of suicidal intent.	
have	PROTECTIVE	Connectedness to people.	
bought	PROTECTIVE	Commitment for the future.	
thinking	PROTECTIVE	Verbalization of willingness to improve.	
understanding	PROTECTIVE	Positive relationship and environment.	
kind	PROTECTIVE	Positive relationship and environment.	
forgiving	PROTECTIVE	Positive relationship and environment.	
suffocating	RF-OTHER	Negative self-image.	
stopping	PROTECTIVE	Verbalization of resilience.	

### Example 12

#### Text:

I'm well aware my life is much better than billions of people and even then I wish I was dead

I just don't understand how people work 80 hours a week, barely getting by, walk miles to work, go to bed hungry, be homeless, go through violence and war and somehow still keep doing that for years and years.

How or what or why???

### Label explanations:

Trigger	Туре	Notes
better	PROTECTIVE	Verbalization of positive environment.
wish	IDEATION	Verbalization of suicidal thoughts.

### Example 13:

#### Text:

I had a lot of problems in my life. The last time I felt happy was when I was 12, that was the last time I got a birthday cake. Then I had socializing problems in school, then my parents left me and the only one who I was living with was my grandmother and cat. After that my grandmother passed away and the cat died in 3 months. It was a hard time for me and the only one who cared for me was my cousin. I often visited him and was sharing my problems. After my grandmother passed away I started smoking, because before that every day I had nightmares seeing her dying and telling me to do the same thing. A few weeks later my grandmother's brother visited me and told me that I am a selfish worthless person who doesn't care about the person who I have lived for whole life together because I don't even go to the cemetery. That was the first time I attempted suicide but failed at it.

After all that I learned a lot of things in life and I stopped talking to relatives and I stopped listening to this kind of person. The only reason why I still live until today is my nephew who I like the most and she is the only one who makes me happy but she grows up and I notice that she likes her parents more than me, although I'm spending all my free time with nephew and spending like all of my money to make her happier.

All that text was like short summary about my life and I don't have enough power to tell you about all the reasons why this happened and other problems that want to make kill myself.

And the funniest thing about all that is that I'm ugly. I'm just laughing right now because my life is so shit. Every fucking morning I wake up and think about why do I even exist. Like what is the reason, I don't even want to look in a mirror, I just hate myself. I can't take photos with my friends, in school everyone knew I was the ugliest in the classroom and they were joking about that. One kid asked me:

"Why is your skin this color?" and I had nothing to say. And I remember a lot of times people made jokes about me, and when jokes were about my appearance, people who I don't know just were quiet, because its truth, because they can't support me. I have a friend who always tries to make me happy, a few months ago he met someone on tinder and told me to come with him. So there were 2 girls, me and my friend. Everything was good except me. I had a good time with that girl, but she didn't like me cuz of my appearance and the same thing happened before too. After that, I'm just working, sitting at home, sometimes playing games, and when one of my friends tells me to go somewhere I just stay at home. The last month I have suicidal thoughts 24/7 and I'm planning to kill myself in 6 days.

The reason why I posted this, I still think I can get some help and get through this, if not there is no reason to live.

Trigger	Туре	Notes	
had	RF-OTHER	Verbalization of negative environment.	
had	RF-RELATIONSHIP	Verbalization of isolation.	
left	RF-RELATIONSHIP	Family breakdown.	
living	PROTECTIVE	Connectedness to people.	
passed	RF-LIFE	Loss of life.	
died	RF-LIFE	Loss of life.	
cared	PROTECTIVE	Connectedness to people.	
visited	PROTECTIVE	Connectedness to people.	
sharing	PROTECTIVE	Connectedness to people.	
passed	RF-LIFE	Loss of life.	
smoking	RF-HEALTH	Drug use.	
had	RF-OTHER	Negative mental state.	
dying	RF-LIFE	Mention of loss of life.	
do	IDEATION	Suicidal thoughts.	
told	RF-OTHER	Bullying/teasing.	
attempted	ACTION	Suicide attempt.	
failed	ACTION	Suicide attempt.	
talking	RF-RELATIONSHIP	Verbalization of isolation.	
listening	RF-RELATIONSHIP	Loss of connection to people.	

nephew	PROTECTIVE	Connectedness to people.
makes	PROTECTIVE	Connectedness to people.
likes	RF-RELATIONSHIP	Perceived loss of relationship.
spending	PROTECTIVE	Connectedness to people.
want	IDEATION	Suicidal thoughts.
shit	RF-OTHER	Negative environment.
think	IDEATION	Suicidal thoughts.
hate	RF-OTHER	Negative self-image.
joking	RF-OTHER	Bullying/teasing.
asked	RF-OTHER	Bullying/teasing.
made	RF-OTHER	Bullying/teasing.
have	PROTECTIVE	Connectedness to people.
tries	PROTECTIVE	Connectedness to people.
had	PROTECTIVE	Positive experience.
have	IDEATION	Suicidal thoughts.
planning	IDEATION	Active suicidal intent mention.
get	PROTECTIVE	Willingness to improve.
get	PROTECTIVE	Connectedness to people.
reason	IDEATION	Suicidal thoughts.

## 6. Communication

- The best way to communicate is through Slack (<a href="https://slack.com/downloads">https://slack.com/downloads</a>). You will be invited to the "annotation-suicidal-ed" Slack channel for discussion and clarification purposes.
- Once you join the channel, please do not comment on any other channels.
- We can answer **in less than 24** hours through Slack. If using email, we will try to answer within 24 hours.
- The **preferred language is English** in the shared "annotation-suicidal-ed" channel. For direct messages between pairs, you can use whichever language that you feel most comfortable with.
- The default time zone is **US Pacific Time (UTC-8)**. The team will be multinational, so time-delay in messaging should be expected.

• Please include your email in the following table:

ld	Name	Countries	Username (Brat)	Email (Slack)	Group
L	Luis		luis	lguzmann@uoregon.edu	
L	Viet		vietl	vietl@cs.uoregon.edu	
1	Betul Kanbur	Turkey			1
2	Nathalia	Colombia			1
3	Lindsay	South Africa			1
4	Lekan	Nigeria			2
5	Zachary	Zambia			2
6	Irish	Philippines			3
7	Jamie	Malaysia			3

**Important note:** Access to the annotation tool is password protected. Your *username* is shown on the table, the *password* will be sent through Upwork.

### 7. Workload and annotation phases

We expect each annotator to label around **72,000 words** (~400 documents). Given that we are working with reddit posts, document size will vary a lot. The minimum length of a document is 50 words.

The workload will be split into **two phases**: pilot stage and mass production.

## a) Pilot

- The objective of this phase is for annotators to learn the task.
- You will be assigned a partner to work with.
- You will both work on the same subset of documents of around 10% of the document set.
- In this stage, you should constantly communicate and discuss with your partner.
- Fix any disagreements until you have about 80% agreement.
- This step is **extremely important**, please be very thorough and let us know if you need any clarifications.
- We expect the pilot phase to last for about **1 week**. If you and your partner complete it sooner, let us know so that you can start working on the second phase.

### b) Mass production

- This phase **makes up the bulk** of the workload (90%).
- At this point, you should be familiar with the task/interface and the **labeling process** will be much smoother.
- We **do not expect you to synchronize** with your partner during this phase. However, brief discussions are encouraged whenever you think them convenient.
- The documents you work on will have some overlap with your partner's in order to cross-check your work.
- o This phase is 2 weeks long.

## 8. Additional questions

- Is pilot work counted to the final work?
  - YES, your pilot work is extremely important, it will serve as the golden standard, so, please do it carefully, we really appreciate your carefulness.
- Is mass production work evaluated?
  - YES, even though you do not need to synchronize, your work and your partner work will be evaluated based on the overlap documents (10% of the mass production work).
- Can I view our agreement?
  - YES, The agreement report is updated by request. The BRAT tool also provides a feature to compare your works.
- Can I see my partner's work?
  - YES, you can select your partner's (or any other annotator) folder in the web interface. Please be careful, however, to not mess up the work of any other annotators.
- What happens if my partner leaves the job?
  - We don't expect this to happen. However, we will find a way around. Don't worry. Your job and your work is secured.