# Mechanical Turk Instructions for paper "Understanding the Dynamics between Vaping and Cannabis Legalization Using Twitter Opinions"

# Instructions for Annotation of E-cigarettes-related Tweets

Description: You will be asked to answer 2 multiple-choice questions for each of 5 tweets: Is this tweet referring to e-cigarettes? Is the person who wrote this tweet in favor of or against e-cigarette use? English proficiency is required to successfully complete the task.

Keywords: annotation, label, tweets, text, e-cigarettes, English

Adult Qualification: Age 18+, Private visibility

#### Masters Qualification:

Location: United StatesHIT approval rate > 95%

• Number of HITs approved > 100

# Summary

The goal of this survey is to understand attitudes towards e-cigarettes on social media. You will be shown five publicly available tweets and asked to answer two questions per tweet.

The first question is about deciding whether a tweet is referring to e-cigarettes or not. Most of the tweets are related to JUUL, a popular e-cigarette brand in the United States. All tweets included in the study contain at least one word or hashtag related to JUUL e-cigarettes: *juul, juulvapor, juulnation, doit4juul,* and may contain other e-cigarette references, including *ecig, e-cigarette, vape, vaping, juul pod, vape pen, mint pod, mango pod.* However, the presence of one of these words does not necessarily indicate that the tweet is referring to e-cigarettes. For example, the tweet "Why visual artist Margaret Juul is one of the Best of the Bay" is not referring to e-cigarettes and "Juul" is used as a last name.

The second question is a follow-up question to the first one and is asking you to determine whether the person who wrote the tweet is in favor of or against e-cigarette use. For example, the tweet "BRO pLeAsE let me hit your juul" suggests that the person is in favor of e-cigarette use whereas the tweet "i don't do juul, i have jesus!!!!" suggests that the person is against e-cigarette use. The answer to this question should be "Neither" in the following cases: (i) the tweet author's position on e-cigarette use is neutral, (ii) their position on e-cigarette use can not be determined based on the tweet, and (iii) the tweet is not about e-cigarettes and the answer to the first question is 'no.'

You will be paid 20 cents for this task. You can complete as many tasks as you like.

Warning: Some of the tweets may contain adult themes or offensive language. Worker discretion is advised.

#### **Detailed Instructions**

Please answer the following questions about each tweet, to the best of your judgment. Each question requires you to choose only one of the given options.

Q1. To the best of your judgment, is this tweet referring to e-cigarettes?

The answer should be one of the following:

- **Yes:** The tweet is referring to e-cigarettes.
- No: The tweet is not referring to e-cigarettes.

# Q2. To the best of your judgment, is **the person who wrote this tweet** in favor of or against e-cigarette use?

The answer should be one of the following:

- In favor: The tweet suggests that the tweet author is in favor of e-cigarette use. This can be expressed by tweeting about personal e-cigarette use, the experience of e-cigarette use, intention to use, positive opinion on e-cigarettes, or advantages of e-cigarettes.
- Against: The tweet suggests that the tweet author is against e-cigarette use. This
  opposition can be expressed with negative experiences, negative opinions, intention to
  quit, information about harmful effects or disadvantages.
- **Neither:** The tweet is neutral, or the author's position can not be determined from the tweet, or the tweet is not about e-cigarettes.

# Examples

Tweet: "I lose my juul like 20 times a day"

Q1. To the best of your judgment, is this tweet referring to e-cigarettes?

=> **Yes** ("Juul" is used in the context of e-cigarettes)

Q2. To the best of your judgment, is the person who wrote this tweet in favor of or against ecigarette use?

=> In favor (The tweet suggests the tweet author owns a JUUL device and uses it)

Tweet: "Honestly really don't get people that use a juul"

Q1. To the best of your judgment, is this tweet referring to e-cigarettes?

=> **Yes** ("Juul" is used in the context of e-cigarettes)

Q2. To the best of your judgment, is the person who wrote this tweet in favor of or against ecigarette use?

=> **Against** (The tweet suggests the tweet author does not approve of JUUL use)

Tweet: "Devan is half asleep trying to be fully asleep and it's dead quiet, and I hear her rip from her Juul.... I can not"

Q1. To the best of your judgment, is this tweet referring to e-cigarettes?

=> **Yes** ("Juul" is used in the context of e-cigarettes)

Q2. To the best of your judgment, is the person who wrote this tweet in favor of or against ecigarette use?

=> **Neither** (Although the tweet suggests "Devan" is using e-cigarettes, it is not clear whether the tweet author approves of their use or not.)

Tweet: "Best alternative spellings of my name: Jawl Juul"

Q1. To the best of your judgment, is this tweet referring to e-cigarettes?

=> **No** ("Juul" is referring to a name, not e-cigarettes)

Q2. To the best of your judgment, is the person who wrote this tweet in favor of or against ecigarette use?

=> **Neither** (The tweet is not referring to e-cigarettes)

#### Instructions for Annotation of Cannabis-related Tweets

Description\*: You will be asked to answer 2 multiple-choice questions for each of 5 tweets: Is this tweet referring to cannabis? Is the person who wrote this tweet in favor of or against cannabis use? English proficiency is required to successfully complete the task.

Keywords: annotation, label, tweets, text, cannabis, English

Adult Qualification: Age 18+, Private visibility

Masters Qualification:

Location: United StatesHIT approval rate > 95%

Number of HITs approved > 100

#### Summary

The goal of this survey is to understand attitudes towards cannabis on social media. You will be shown five publicly available tweets and asked to answer two questions per tweet.

The first question is about deciding whether a tweet is referring to cannabis or not. All tweets included in the study contain at least one word or hashtag related to cannabis: cannabis, weed, ganja, marijuana, maryjane, marihuana, hash, reefer, hashish, bhang, THC, CBD, green goddess, locoweed, spliff, hemp, wacky baccy, sinsemilla, doobie, acapulco gold. However, the presence of one of these words does not necessarily indicate that the tweet is referring to cannabis. For example, the tweet "Flesh tones and weed green are the big hits" is not referring to cannabis and "weed" is used to describe the color green.

The second question is a follow-up question to the first one and is asking you to determine whether **the person who wrote the tweet** is in favor of or against cannabis use. For example, the tweet "Eyes closed, smoking marijuana" suggests that the person is in favor of cannabis use whereas the tweet "freshman year i almost DIED from weed and i dont do that stupid crap anymore" suggests that the person is against cannabis use. The answer to this question should

be "Neither" in the following cases: (i) the tweet author's position on cannabis use is neutral, (ii) their position on cannabis use can not be determined based on the tweet, and (iii) the tweet is not about cannabis and the answer to the first question is 'no.'

You will be paid 20 cents for this task. You can complete as many tasks as you like.

Warning: Some of the tweets may contain adult themes or offensive language. Worker discretion is advised.

#### **Detailed Instructions**

Please answer the following questions about each tweet to the best of your judgment. Each question requires you to choose only one of the given options.

Q1. To the best of your judgment, is this tweet referring to cannabis?

The answer should be one of the following:

- Yes: The tweet is referring to cannabis.
- No: The tweet is not referring to cannabis.

Q2. To the best of your judgment, is **the person who wrote this tweet** in favor of or against cannabis use?

The answer should be one of the following:

- In favor: The tweet suggests that the tweet author is in favor of cannabis use. This can be expressed by mentions of personal cannabis use, the experience of cannabis use, intention to use, positive opinion on cannabis, or advantages of cannabis.
- Against: The tweet suggests that the tweet author is against cannabis use. This
  opposition can be expressed with negative experiences, negative opinions, intention to
  quit, information about harmful effects or disadvantages.
- **Neither:** The tweet is neutral, or the author's position can not be determined from the tweet, or the tweet is not about cannabis.

### **Examples**

Tweet: "@TheDuragGeneral COME TO VANCOUVER BRO THE WEED IS CHEAP"

Q1. To the best of your judgment, is this tweet referring to cannabis?

=> **Yes** ('Weed' is used in the context of cannabis)

Q2. To the best of your judgment, is the person who wrote this tweet in favor of or against cannabis use?

=> **In favor** (The tweet author is inviting a person to get cannabis)

Tweet: "freshman year i almost DIED from weed and i dont do that stupid crap anymore" Q1. To the best of your judgment, is this tweet referring to cannabis?

=> **Yes** ('Weed' is used in the context of cannabis)

- Q2. To the best of your judgment, is the person who wrote this tweet in favor of or against cannabis use?
- => **Against** (Although the tweet author previously used cannabis, now the author does not use it and uses offensive words to describe cannabis)

Tweet: "My car smells like weed and I haven't even brought anything like that in here halp"

- Q1. To the best of your judgment, is this tweet referring to cannabis?
- => **Yes** ('Weed' is used in the context of cannabis)
- Q2. To the best of your judgment, is the person who wrote this tweet in favor of or against cannabis use?
- => **Neither** (The author's position can not be determined from the tweet. They express concern about cannabis odor in their car but there is no evidence that they support or oppose cannabis use in general.)

Tweet: "Chicago Improviser Who Has Moved to LA: wow I love weed so so much anyway here is my all white indie team come check us out at The Hattery at 1230pm"

- Q1. To the best of your judgment, is this tweet referring to cannabis?
- => **Yes** ('Weed' is used in the context of cannabis)
- Q2. To the best of your judgment, is the person who wrote this tweet in favor of or against cannabis use?
- => **Neither** (The author's position can not be determined from the tweet. It is not clear whether the tweet author is the one who loves weed or someone else who is being quoted.)

Tweet: ""Envy is a weed that should not be watered"- Cosimo de Medici"

- Q1. To the best of your judgment, is this tweet referring to cannabis?
- => **No** (This is a quote unrelated to cannabis)
- Q2. To the best of your judgment, is the person who wrote this tweet in favor of or against cannabis use?
- => **Neither** (The tweet is not about cannabis.)