

Targeted Sentiment Annotation Guidelines

Building a Corpus for Targeted Sentiment Analysis of Political YouTube Comments

Task Overview

The goal of this annotation task is to annotate YouTube comments with sentiments directed towards certain aspects of 5 candidates running for President of the United States in 2020. Each comment is labeled according to users' sentiment opinion of one or more aspects as positive, negative, neutral. There are 4 main sentiment aspects: general, campaign prospects, policy, voter appeal with several sub-aspects. Examples for each sub-aspects are demonstrated below.

The actual annotation procedure consists of several steps. The annotator (you) will be presented with a series of YouTube comments, and your job is to annotate the comment with, firstly, an overall "general" sentiment and, secondly, any potential sentiments toward various aspects that the comment mentions. The detailed decision procedure we recommend for doing this is on the last page. It would be helpful to go over that first before moving on. You can alternatively view the diagram [here](#).

Data

You will be presented with [an annotation tool](#) that will look like this:

Aspect Annotation Task

Overview goes here, with a link to [guidelines](#).

video id: 13OypBRrwv8 video title: Who Is Pete Buttigieg and Why Is He Killing It in the Polls? | The Daily Show

comment time: 2019-12-28T10:55:04.000Z `` already biden warren and butigeg are dropping or stagnating in the polls . because people are starting to realize that these people have been bought and paid for and offer no real change but rather the preservation of the status quo and establishment . make no mistake . this race is between bernie sanders and andrew yang . yang2020 "

Target ▾

General ▾

Policy ▾

Voter Appeal ▾

Campaign Prospects ▾

Submit ▶

There are 5 JSON files including comments for 5 candidates. Take Joe Biden's json file as an example. Keys of this dictionary are video IDs, values are dictionaries of comments of authors. In each comment dictionary, keys are names of authors, and values are their comments' time and text. Most likely, you will be dealing with this data through the annotation tool interface which is pictured above.

Sentiment Types

For the sentiment annotation, we use a three-way categorization where each expressed sentiment is either positive, neutral, or negative. Finer-grained annotations, such as "slightly negative" are beyond the scope of this annotation project, and will not be used.

Aspect Types

Aspect: General

Definition: Overall sentiment of the comment author toward the candidate in general, or toward an aspect of the candidate not specified below. This includes comments regarding the candidate's manner, appearance, personal life, capability, or likability. Consider slogans and hashtags to be in this category.

Format of Annotation: *<candidate_name>, general, <sentiment>*

Tag: *general*

Examples:

1. "every time i here this guy pete speak i ca n't help but admire his words ."
Pete Buttigieg, general, positive
2. "the best candidate"
Pete Buttigieg, general, positive
3. "pete does n't know the bible"
Pete Buttigieg, general, negative
4. "dumbest guy in the campagne"
Pete Buttigieg, general, negative

Aspect: Campaign Prospects

Definition: Sentiment of the comment author toward the candidate's likelihood of being elected. Note that commenters might have a positive sentiment toward the candidate but still have a negative sentiment toward his/her campaign prospects.

Format of Annotation: *<candidate_name>, prospect, <sentiment>*

Tag: *prospect*

Examples:

1. “# petebuttigieg will be the next potus !”
Pete Buttigieg, general, positive
Pete Buttigieg, prospect, positive
2. “mayor pete is the future of the democratic party . i sadly doubt that he will win th 2020 election .”
Pete Buttigieg, general, positive
Pete Buttigieg, prospect, negative

Aspect: Policy

Definition: sentiment of the comment author toward policies supported by the candidate in a specific area

Format of Annotation: *<candidate_name>, policy_<tag>, <sentiment>*

Tags: *lgbt, economy, education, immigration, race, healthcare, international, gender, unspecified, other*

Sub-aspect: LGBT+

Definition: sentiment of the comment author toward policies supported by the candidate in LGBT+, such as policies for/against same sex marriage, gender neutral lavatories, etc.

Format of Annotation: *<candidate_name>, policy_lgbt, <sentiment>*

Tag: *lgbt*

Examples:

1. “Joe Biden voted FOR the defense of marriage act, directly trampling my rights as a gay man.”
Joe Biden, general, negative

Joe Biden, policy_lgbt, negative

Joe Biden, appeal_lgbt, negative

2. “Don't vote for Bernie. He's for same sex marriages and for abortion. I pray for him !!!!”

Bernie Sanders, general, negative

Bernie Sanders, policy_lgbt, negative

Notes:

1. The annotation should be the sentiment of the comment author toward the candidate's policies, not the political opinion of the comment author.

For instance, in example 1, the author of the comment is clearly for LGBT+ rights and he is against Joe Biden's defense of marriage act. The annotation should be *negative* as he feels negative of Joe Biden's policies in the area of LGBT+, instead of *positive* despite him positively advocating for LGBT+ rights.

Similarly, in example 2, Bernie Sanders is for same sex marriages, and is for LGBT+ rights, but the comment author is against such policy. The annotation should be *negative* as he feels negative of Bernie Sanders's policies in the area of LGBT+.

Sub-aspect: Economy

Definition: sentiment of the comment author toward the candidate's policies related to the economy, such as spending, taxation, universal basic income, etc.

Format of Annotation: *<candidate_name>, policy_economy, <sentiment>*

Tag: *economy*

Examples:

1. “Someone needs to educate this guy on the causes of inflation”

Andrew Yang, general, negative

Andrew Yang, policy_economy, negative

2. “Honestly, I feel like UBI puts too much weight on the value of capitalism. It relies on companies to be ethical, to provide things for affordable prices, to treat consumers with human dignity, but are these all things that companies really do? We need to unconditionally support the right to healthcare, food, and shelter. There's a good chance that just throwing money at poor people won't be able to provide those things, especially if the rich businesses don't care about providing them.”

Andrew Yang, general, negative

Andrew Yang, policy_economy, negative

3. “As a small business owner who makes the corporations and government money every day with little money left over for myself I will be voting for Andrew yang . The cost of living where I am (Denver) is so high it is pushing small businesses out and bringing in corporate owned businesses . Bailing the banks and auto industry out destroyed our country. But if we can bail out the rich we can bail out the middle class and lower class. Ubi is a productive solution.”

Andrew Yang, general, positive

Andrew Yang, policy_economy, positive

4. “Trying to apply higher taxes to the ultra wealthy is NOT a good ideal. Per Ben Shapiro... The rich have enough money to move to another country.”

Elizabeth Warren, general, negative

Elizabeth Warren, policy_economy, negative

Notes:

1. The annotation here should be made to reflect the sentiment of the person writing the comment, and directed towards the economic policies of the target candidate.
2. In case there are several candidates mentioned, provide several annotations.
 - a. For instance, a comment might express a positive sentiment towards Andrew Yang’s UBI proposals, and a negative sentiment towards Biden’s policies. This kind of a comment warrants two separate annotations.
3. In case the comment does not refer to a candidate by name, but is still related through the overall topic of the video, the target should be inferred from the video title.
4. Truly generic expressions, e.g. “Capitalism sucks!” should be left unannotated.

Sub-aspect: Education

Definition: sentiment of the comment author toward the candidate’s policies related to education

Format of Annotation: <candidate_name>, policy_education, <sentiment>

Tag: education

Examples:

1. “If you make public college free. The tuition will go from 10k a year to a 100k a year. There’s your free college folks.”

Elizabeth Warren, general, negative

Elizabeth Warren, policy_education, negative

2. “I love that her higher education plan isn’t just college but also trade and tech schools. The important part of this though is getting those green jobs and infrastructure in the middle of the country. What’s up with GE?? Why haven’t they switched to electric? They’ve made investments but I’m not seeing the cars? Get with the program!”
Elizabeth Warren, general, positive
Elizabeth Warren, policy_education, positive
3. “I would Vote for someone that sees the biggest problems with the Education system and ACTUALLY does something to fix it that will give students a much better school life.”
Elizabeth Warren, general, positive
Elizabeth Warren, policy_education, positive
4. “yeahhh nothing is free be it education or healthcare and more . whatever you wo n't pay from your wallet will be paid for with a massive tax increase .”
Bernie Sanders, general, negative
Bernie Sanders, policy_education, negative

Notes:

1. In case the sentiment expressed does not refer to a specific target candidate, try to infer it from the video title. Note that often references are not direct, e.g. *her* in Example 2 above.
2. If the comment is truly generic, and not related to the candidate’s overall policy proposals, leave unannotated. Example: talking about free college in the context of a candidate whose platform does not include free college as a topic.

Sub-aspect: Immigration

Definition: sentiment of the comment author toward the candidate’s policies related to immigration

Format of Annotation: *<candidate_name>, policy_immigration, <sentiment>*

Tag: *immigration*

Examples:

1. “So liberal politicians are always saying we need to pass "Comprehensive Immigration Reform" but to this day I've never heard any of them say what that would include. I know a lot of people on the extreme left just want open borders with no immigration laws whatsoever.”
Elizabeth Warren, general, negative
Elizabeth Warren, policy_immigration, negative

2. “Took an oath to protect the constitution But not when it comes the immigration laws bc i need votes”
Elizabeth Warren, general, negative
Elizabeth Warren, policy_immigration, negative
3. “Joe Biden policies:
 - For war in Iraq
 - Spreading fake Russia collusion
 - Race baiting and identity politics
 - Mass illegal immigration and open borders
 - Groping children”*Joe Biden, general, negative*
Joe Biden, policy_immigration, negative

Notes:

1. In case the target is not mentioned directly, try to infer it from the video title/context. An example of this is (1) where the title of the video is *Elizabeth Warren finds immigration is a key topic in rural Iowa*, and thus the overall sentiment can be deduced to be about her.
2. Completely off-topic / unrelated comments should be left unannotated, as should ones with no explicit target, even after the video title / context have been taken into account.

Sub-aspect: Race

Definition: sentiment of the comment author toward policies about race, like American Asian, American Indian, etc.

Format of Annotation: *<candidate_name>, policy_race, <sentiment>*

Tag: *race*

Examples:

1. “ it 's a women right not to have sex then they do not have worry about abortion . the african people were the ones that sold their people as slaves to countries to the highest bidder . repatriation for what ? seek repatriation from the african people that sold the slaves for money not the people that bought them . you have something to sell people will buy it and use it .”
Elizabeth Warren, general, negative
Elizabeth Warren, policy_gender, positive
Elizabeth Warren, policy_race, negative

2. “forget about reparation ! bernie is right on this . reparations were distributed to survivors of the holocaust . but these reparations were only given to survivors . not their children grandchildren etc . slavery ended about 150 years ago . giving reparations to today's descendants of slaves will accomplish absolutely nothing ! it will only waste tax dollars , and worse , likely cause resentment toward recipients from taxpayers . it will be a `` " race tax " " because white , hispanic , asian and other non-african people will be paying it . slavery was a grave atrocity in america 's past . but it 's over and done with . let 's look toward the future instead of the past !”

Bernie Sanders, general, positive

Bernie Sanders, policy_race, positive

Sub-aspect: Healthcare

Definition: sentiment of the comment author toward policies about healthcare.

Format of Annotation: <candidate_name>, policy_healthcare, <sentiment>

Tag: healthcare

Examples:

1. bernie sanders / elizabeth warren 2020 they are promoting policies to actually help the american people . listen to the details . healthcare when you need it without going broke , a good education for your children , a wage you can live on and enjoy life . good stuff for a happy life . thanks ali velshi and msnbc for the story . what we need . policy details to educate the american public . how to pay for it ? the answer is in the details not the hype .

Elizabeth Warren, general, positive

Elizabeth Warren, policy_healthcare, positive

Elizabeth Warren, policy_education, positive

Elizabeth Warren, policy_economy, positive

Bernie Sanders, general, positive

Bernie Sanders, policy_healthcare, positive

Bernie Sanders, policy_education, positive

Bernie Sanders, policy_economy, positive

2. not a data nerd yang had to give her the data lol flip flopping lair banks are still running the country into the ground her medical policy is very questionable white privilege telling us she knows best for everyone i 'm just waiting for white woman tears now you know they have magic powers '

Elizabeth Warren, general, negative

Elizabeth Warren, policy_healthcare, negative

3. “great concept but in a country where we cant afford healthcare i think this is a little out of reach right now”

Andrew Yang, general, neutral

Andrew Yang, policy_healthcare, negative

Notes:

1. If we see more than one target (candidate), annotate both.
2. Healthcare aspects include medical devices, hospital supplies, medical service, pharmaceuticals, medical policies, etc.

Sub-aspect: International

Definition: sentiment of the comment author toward policies about international relations

Format of Annotation: <candidate_name>, policy_international, <sentiment>

Tag: international

Examples:

1. “I hope Biden and his sons corruption with China come to light so everyone can see exactly how corrupt creepy uncle Joe really is, even people that worked for him as vice president said he has been wrong for 4 decades referring to his failed choices on foreign affairs.”

Joe Biden, general, negative

Joe Biden, policy_international, negative

2. “indian community will do not vote for this old man ... he do not respect india kashmir issue ... without knowing things about india ... he is speaking against hindu community for muslim vote he is supporting islamic jihadi”

Bernie Sanders, general, negative

Bernie Sanders, policy_international, negative

Bernie Sanders, appeal_other, negative

Sub-aspect: Gender

Definition: sentiment of the comment author toward policies about gender, such as women’s rights, gender equality, gender justice.

Format of Annotation: <candidate_name>, policy_gender, <sentiment>

Tag: gender

Examples:

1. “ is it just me but are all female democrats just barking mad warren pelosi aoc . i would n't let these women run a bath let alone a country ...”

Elizabeth Warren, general, negative

Elizabeth Warren, appeal_female, negative

Elizabeth Warren, policy_gender, negative

2. “ a powerful launch . but would have been even more powerful if she had connected at the same time the fight of lawrence workers with the contemporary struggles of african americans latinos and other people of color and women and not later . a missed opportunity .”

Elizabeth Warren, general, positive

Elizabeth Warren, policy_gender, positive

Elizabeth Warren, policy_race, positive

Sub-aspect: Unspecified

Definition: sentiment of the comment author toward overall policies of the candidate, not mentioning an aspect.

Format of Annotation: <candidate_name>, policy_unspecified, <sentiment>

Tag: unspecified

Examples:

1. “ warren has the most sensible ideas in the democratic field . she does n't have the charm of some of her competitors but policy wise she is streets ahead of the competition .”

Elizabeth Warren, general, positive

Elizabeth Warren, policy_unspecified, positive

2. “ warren a huge liar and hypocrite she tried to attack others by saying u are taking money from rich people turns out she herself takes money from rich people she wants to pretend and say rich are problem just so people will support by listening `` against rich `` and get fooled by anything she says , she has no policy , she only talks honey points to attract people but have no real policy or intent , she herself has broken every rule and exploited being rich herself in many ways , it 's facts , look it up , and now she is pretending to be `` goodie good and others are bad `` she is the problem herself so how can u think she will do anything to solve it , , , she does n't even know the problems .. just trump is bad , rich

are bad , so i am goooooood , , , people stop being fooled by her ! ! only andrew yang appears like a guy who actually knows what solutions are”

Elizabeth Warren, general, negative

Elizabeth Warren, policy_unspecified, negative

Sub-aspect: Other

Definition: sentiment of the comment author toward policies but not mention which aspect.

Format of Annotation: <candidate_name>, policy_other, <sentiment>

Tag: other

Examples:

1. “If you raise the stats by claiming 'anxiety', you get a disability income, government housing, and then you can get hired in a low wage corporate service job. All his number talk is bullshit. 'Comfortable Americans' have a horrible attitude towards people with 'less money' ...”

Andrew Yang, general, negative

Andrew Yang, policy_other, negative

Aspect: Voter Appeal

Definition: sentiment toward the candidate’s appeal to certain groups of voters, such as African American, Asian American, Hispanic American, White American, young people, old people, LGBT+ minorities, female, male, Republicans, Independents, Democrats, etc.

Format of Annotation: <candidate_name>, appeal_<tags>, <sentiment>

Tags: unspecified, african, asian, hispanic, white, lgbt, female, male, young, old, republican, independent, democrat, other

Sub-aspect: Unspecified

Definition: sentiment toward the candidate’s appeal to voters in general, without any specification of the feature of the voters

Format of Annotation: <candidate_name>, appeal_unspecified, <sentiment>

Tags: unspecified

Examples:

1. “How can a pedophile run for public office?”
Joe Biden, general, negative
Joe Biden, appeal_unspecified, negative
2. Mr Joe Biden is a wonderful person unlike Donald Trump . He will never say you're.fired
Joe Biden, general, positive
Joe Biden, appeal_unspecified, positive

Notes:

1. The annotation of aspect *appeal_unspecified* and other *appeal_<tags>* (referred to as *appeal_specified_tags* in the following) are mutually exclusive, meaning that you cannot annotate the aspects of the same comment as both *appeal_unspecified* and *appeal_african* or *appeal_other* or any other appeal tags. If a comment expresses sentiment toward the candidate’s appeal to a specified group of voters, then the voter appeal commented on is not unspecified.
2. There are a lot of attacks on the alleged pedophile characteristic of Joe Biden, such as in example 1. This should be regarded as *appeal_unspecified*, since children definitely are not a part of the eligible voters, and the attacks on Joe Biden’s alleged pedophile characteristic is an indication of negative sentiment toward the candidate’s appeal to voters in general, regardless of race, age, gender, sexuality, political affiliation, etc.

Sub-aspects: African / Asian / Hispanic / White

Definition: sentiment toward the candidate’s appeal to certain racial groups of voters, such as African American, Asian American, Hispanic American, and White American.

Format of Annotation: <candidate_name>, appeal_<racial_group_name>, <sentiment>

Tags: african, asian, hispanic, white

Examples:

1. “Joe Biden shouldn’t even be in the discussion of presidency. Joe Biden is the father of the crime bill that sent black men to jail for marijuana, and j-walking.”
Joe Biden, general, negative
Joe Biden, policy_race, negative
Joe Biden, appeal_african, negative

2. “Remember Biden is the one who dislikes Black People ! Its on tape look it up!”
Joe Biden, general, negative
Joe Biden, appeal_african, negative
3. “Bernie just told black people(descendants of slaves) to go pound sand on reparation, BERNIE WILL NEVER GET MY VOTE!!!”
Bernie Sanders, general, negative
Bernie Sanders, policy_race, negative
Bernie Sanders, appeal_african, negative

Notes:

1. The annotation of aspect *policy_race* and *appeal_<racial_group_name>* are not mutually exclusive. In example 1, there are both negative sentiments toward Joe Biden’s policies regarding racial bias in criminal justice and Joe Biden’s appeal to African American voters. Therefore, the annotation should include both aspects *policy_race* and *appeal_african*. In example 2, there is only negative sentiments toward Joe Biden’s appeal to African American due to his on the record comment of disliking black people, without any sentiment toward Joe Biden’s policies. Therefore, the annotation should only include aspect *appeal_african*.

Sub-aspects: LGBT+ / Female / Male

Definition: sentiment toward the candidate’s appeal to certain gender-related groups of voters, such as LGBT+ minorities, female voters, and male voters.

Format of Annotation: *<candidate_name>, appeal_<gender_group_name>, <sentiment>*

Tags: *lgbt, female, male*

Examples:

1. “But did he tell all the underage girls in the room ""No dating until you're 30"" like he does when he is groping them on camera?”
Joe Biden, general, negative
Joe Biden, appeal_female, negative
2. “His former secret service agent has testified he a groped women and Children. How can anyone vote for that creep is behond me. #WALKAWAY”
Joe Biden, general, negative
Joe Biden, appeal_female, negative
3. “I’m Gay and I am voting for Joe!”
Joe Biden, general, positive

1. Criticizing a candidate (e.g. Joe Biden) for being old is indicating the sentiment toward the candidate, not the sentiment toward the candidate's appeal to certain age groups. One may perceive Joe Biden to be too old for presidency but may still regard him to be popular among young/old voters.
2. In example 2, an old author commented on a video about Bernie Sanders by showing his/her/their support due to the appeal and benefits of Bernie Sanders' policies to young people. In this case, it should be *appeal young* since the author believes in Bernie

Sanders' positive appeal to young voters despite the identity of the author as an old person.

Sub-aspects: Republican / Independent / Democrat

Definition: sentiment toward the candidate's appeal to certain groups of voters with strong party tendencies or affiliations, such as Republicans, Independents, Democrats.

Format of Annotation: <candidate_name>, appeal_<party_group_name>, <sentiment>

Tags: *republican, independent, democrat*

Examples:

1. "I'm an independent and Biden has an appeal to republicans rn too I feel. A lot of true republicans are having a hard time supporting trump and they could end up voting for Biden. Just my opinion"

Joe Biden, general, neutral

Joe Biden, appeal_republican, positive

Sub-aspects: Other

Definition: sentiment toward the candidate's appeal to a certain group of voters that is not listed above, such as religious voters, retired soldiers, voters with physical constraints, etc.

Format of Annotation: <candidate_name>, appeal_other, <sentiment>

Tags: *other*

Examples:

1. Don't mock religion Biden. I certainly won't vote for you.

Joe Biden, general, negative

Joe Biden, appeal_other, negative

Notes:

1. The annotation of aspect *appeal_other* and *appeal_specified_tags* are not mutually exclusive if the same comment expresses both sentiments towards the candidate's appeal to one or more listed groups of people above and one or more unlisted groups of people, e.g. *appeal_african* and *appeal_other* for a comment about both appeal to African American voters and to retired soldiers.

Recommended Decision Procedure

