Annotation guidelines

In this task, you will be presented with dialogues between two persons, one is the *Explainer* who is trying to explain a certain main topic, and the other is the *Explainee* who is trying to understand that topic. These dialogues are transcribed from the 5-levels show, in which an expert (Explainer) is challenged to explain a given topic to an audience from either of five different levels: child, teenage, undergraduate, graduate, and colleague.
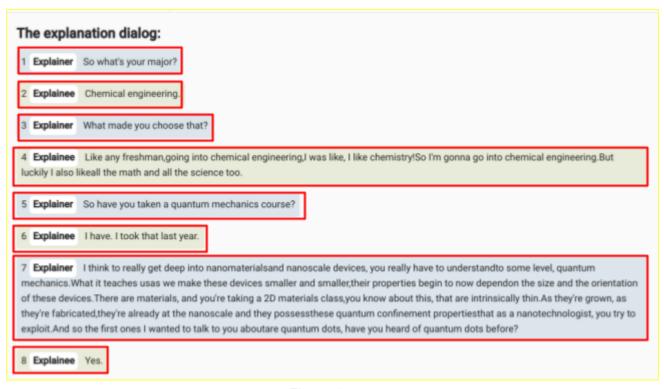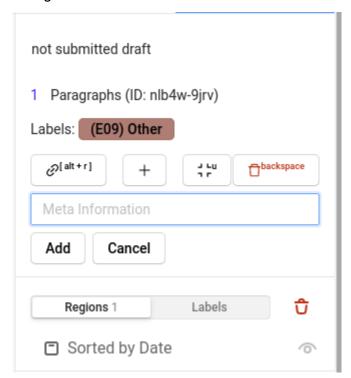

Figure 1

For each of these explanation dialogues, your task is to read through the dialogue turn by turn (turns in Figure 1 are highlighted with red boxes). For each turn, you have to choose exactly one and label from each of the following categories:

1. **Discussed topic:** How is the discussed topic relevant to the main topic?
   a. (T01) It is the main topic
   b. (T02) A subtopic
   c. (T03) A related topic
   d. (T04) An unrelated or no topic is discussed

2. **Speaker's goal:** What goal does the speaker pursue with utterance in the given turn?
   a. (E01) Testing understanding *(The explainer is trying to check whether the listener understood what has been explained)*

b. (E02) Testing prior knowledge *(The explainer is trying to check what prior knowledge (relevant to the explained topic) the listener possesses)*

c. (E03) Provide an explanation *(The speaker is explaining a concept or a topic to the listener)*

d. (E04) Ask for an explanation *(The speaker is requesting an explanation from the listener)*

e. (E05) Signaling understanding *(The speaker's utterance informs the listener that the speaker is understanding the listener)*

f. (E06) Signaling non-understanding *(The speaker's utterance informs the listener that the speaker is not understanding the listener)*

g. (E07) Provide Feedback (*The speaker is providing qualitative feedback to the listener's previous utterance by correcting errors, misconconceptions, or similar)*

h. (E08) Provide Assessment (*The speaker is assessing the listener by rephrasing the listener's utterance, by providing a hint, or similar*)

i. (E09) Introducing Extraneous Information *(The speaker uses extraneous information to ensure complete and coherent understanding)*

j. (E010) Other

3. **Speaker's dialogue act:** How is the goal being pursued in the turn?
   a. (D01) By asking check questions *(Example: Do you study physics?)*

   b. (D02) By asking what/how questions *(Example: How do you like school? What do you do in your free time?)*

   c. (D03) By asking any other type of question *(please provide feedback describing what type of question it is)*

   d. (D04) By answering with confirmation *(Example: It is!, I do)*

   e. (D05) By answering with disconfirmation *(Example: I don't think so! It doesn't!)*

   f. (D06) By giving any other answer to a question (please provide feedback describing what type of answer it is)

   g. (D07) By conveying agreement *(The speaker provides a statement that agrees with the previous statement by the other speaker)*

   h. (D08) By conveying disagreement *(The speaker provides a statement that disagrees with the previous statement by the other speaker)*

   i. (D09) By an informing statement *(The speaker provides a statement the goal of it to convey information to the listener)*

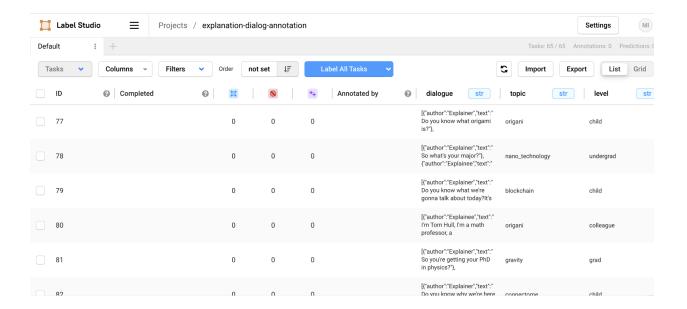   j. (D10) Other (please provide feedback describing what dialogue act it is)

Please note the following:

- For each turn and category, only one label should be used as an answer. In case a turn contains more than one label (for example, an answer and a question), choose the one that you think is prevalent in the turn.
- For **all** cases you select the label *Other* , please make sure to describe what label you think could fit better. You can do this by adding a *Meta Information* text to the annotation, as shown in the following:

Steps to perform the task

1. Follow the provided invitation link and register using an email and a password (please save your password and email to use them again to log in)
2. Click on the **"explanation-dialogs-main-study"** project, and a list of 65 tasks will appear as in the following:

Label Studio ☰ Projects / explanation-dialog-annotation Settings MI

Default ⋮ + Tasks: 65 / 65   Annotations: 0   Predictions: 0

Tasks ▾ | Columns ▾ | Filters ▾ | Order not set ⥮ | Label All Tasks ▾ | ⟳ Import Export | List Grid

ID	Completed	⌘	🚫	✚	Annotated by	dialogue str	topic str	level str
77		0	0	0		[{"author":"Explainer","text":" Do you know what origami is?"},	origani	child
78		0	0	0		[{"author":"Explainer","text":" So what's your major?"}, {"author":"Explainee","text":"	nano_technology	undergrad
79		0	0	0		[{"author":"Explainer","text":" Do you know what we're gonna talk about today?It's	blockchain	child
80		0	0	0		[{"author":"Explainee","text":" I'm Tom Hull, I'm a math professor, a	origani	colleague
81		0	0	0		[{"author":"Explainer","text":" So you're getting your PhD in physics?"},	gravity	grad
82		0	0	0		[{"author":"Explainer","text":" Do you know why we're here	connectome	child

3. To start one of the tasks you can simply click on it and you will be directed into a new window where you can see an explanation dialogue along with the categories to select labels from. Before you start annotating, in the top bar, select from the drop-down the "Create Annotation" option. Now check step 4.

4. For each dialogue turn:
   a. Read the text of the turn.
   b. Starting from the first category, click on the proper label.
   c. Highlight all text of the turn as one region, and annotation will be created automatically where you can see it on the left panel.
   d. Now you can continue selecting the labels for the other two categories and the labels will be added to the turn.
   e. To unselect the current annotated region, click on it or press "Esc" on your keyboard.
   f. Repeat the process for each turn.
5. After annotating all turns, click submit to save your annotation. At any time, you can get back to the task and continue your annotations.

Notes:
- You can, at any time, delete an annotation or update it by clicking on it in the text and managing it through the left panel.
- Note that every time you want to create an annotation, you have to first click on the label then highlight the text.
- If you want to add a new label to an annotation already created, select the annotation and then click on the label.
- For each dialogue, we also provide an optional youtube link that can be used to watch the conversation along with reading the text.

- At the end of each task, please double-check the following:
    - The number of annotations created is equal to the number of dialogue turns
    - Each annotation contains three labels

Example dialogue with labels

The following is a sample dialog from the dataset. We will try to annotate it according to the given scheme. However, please note that this is our interpretation of each of the labels and you might not agree with some of it and that is totally fine.

Turn	Discussed topic	Speaker's dialogue act	Speaker's goal
Explainer: So observational cosmology, so like what do you look at?	(T03) A related topic	(D02) To ask what/how question	(E02) Testing prior knowledge
Explainee: So, I work on two ground-based surveys in the optical, and we're basically trying to make huge maps of the universe so that we can study dark energy.	(T04) Other/No topic was introduced	(D06) Answer - Other	(E03) Provide an explanation
Explainer I'm sure you've heard about extra dimensions a little bit.	(T01) It is the main topic	(D02) To ask what/how question	(E02) Testing prior knowledge

Explainee: I've heard it, yeah.	(T04) Other/No topic was introduced	(D04) To answer a question by confirming	(E05) Signaling understanding
Explainer: Well I'm thinking about the idea that there might be more than three dimensions of space. What is your impression of theoretical physicists who think about things like extra dimensions of space that they haven't ever seen?	(T02) A subtopic	(D02) To ask what/how question	(E02) Testing prior knowledge
Explainee: I get a little scared, [laughing] because I think how can you prove these theories?	(T04) Other/No topic was introduced	(D06) Answer - Other	(E05) Signaling understanding
Explainer: Right.	(T04) Other/No topic was introduced	(D07) Agreement	(E07) Other

Explainee: One theory I've heard of, I don't know if this fits in with that, is bubble universes.	(T03) A related topic	(D09): Other	(E05) Signaling understanding
Explainer: Hmmm	(T04) Other/No topic was introduced	(D09): Other	(E07) Other
Explanee: Is that an extra dimension? Does that fit into that, or is that something?	(T04) Other/No topic was introduced	(D01) To ask a check question	(E04) Ask for an explanation
Explainer: It does. In fact, one way that different universes might be created and be different from each other is that different universes could have effectively different numbers of dimensions. Like we have three dimensions around us, but there's people out there, aliens, who could live in five dimensional universes.	(T04) Other/No topic was introduced	(D07) Agreement	(E03) Provide an explanation