

# Dialogue annotations

Dialogue engineering

M2 NLP 2025-2026

## 1 Emotion recognition

1. Consider the two following dialogues:

- (i) **A1:** Hey. Why did you take that money? You are such a cheater! I should send you to jail!  
**B2:** I am not cheating. When you pass go, you collect \$ 200, Everyone knows that!  
**A3:** Well you can't just take the money. You have to ask the bank for money. And I'm the banker.  
**B4:** Banker?  
**A5:** Yes...  
**B6:** Can I have my \$ 200 please?  
**A7:** Sure. Here you are, \$ 200, Thank you, please come again! Now it's my turn to roll the dice.
- (ii) **A1:** Oh, my God! I've been cheated!  
**B2:** What? What did you buy?  
**A3:** It's a brick! I can't believe how stupid I was. Damn it!  
**B4:** What is it? Why did you buy a brick?  
**A5:** There was a guy on the sidewalk. He had three new boxes, Panasonic video camera boxes. He said he had to get rid of them quick.  
**B6:** And?  
**A7:** So he said he'd sell me one for twenty dollars. A four-hundred-dollar camera for twenty bucks.  
**B8:** And it's a brick?  
**A9:** Yes.  
**B10:** I can't believe how stupid you are. Why didn't you open the box?  
**A11:** I wanted to. But he said, no, the box is still in its plastic wrap from the store. If it's opened, other people won't believe it's new.  
**B12:** So he had the boxes wrapped in plastic.  
**A13:** Yes, it was the kind of perfect plastic wrap that comes with new products. Look, it even had a bar-code price sticker on it! It looked brand new.

(a) On your own, annotate each dialogue turn with one of the following labels:

0. Neutral
1. Anger
2. Disgust
3. Fear
4. Joy
5. Sadness
6. Surprise

(b) By groups of 3-4, compare your annotations. Compute your inter-annotator agreement (script on Arche).

(c) As a group, pick one 'Gold' annotation per dialogue turn.

2. What can we say about the design of this annotation task?

3. Emotion recognition is usually a support task for larger pipelines. Can you think of some applications where it can be useful?

## 2 Next sentence prediction

4. Consider the following dialogue:

- **USR1:** I need train reservations from Norwich to Cambridge
- **SYS2:** I have 133 trains matching your request. Is there a specific day and time you would like to travel?
- **USR3:** I'd like to leave on Monday and arrive by 18:00.
- **SYS4:** There are 12 trains for the day and time you request. Would you like to book it now?
- **USR5:** Before booking, I would also like to know the travel time, price, and departure time please.
- **SYS6:** There are 12 trains meeting your needs with the first leaving at 05:16 and the last one leaving at 16:16. Do you want to book one of these?
- **USR7:** No hold off on booking for now. Can you help me find an attraction called cineworld cinema?

- (a) Make groups of 4. Split your group in two pairs A and B (if you are a group of 3, sub-group A has one member and subgroup B two members). In each group, separate As and Bs so that each sub-group cannot hear the other one.
- (b)
- Sub-groups A: Propose three subsequent dialogue turns (System, User, System) which would fit the above dialogue.
  - Sub-groups B: One of you impersonates the System, the other the User. Propose three subsequent dialogue turns (System, User, System) as if you were the ones having the above dialogue.

Here are some information known by the System on the Cineworld Cinema in Cambridge:

- Location : Cambridge Leisure Park
  - Address: 1a Clifton Way, Cambridge CB1 7GX, Royaume-Uni
  - Accessibility: Lift, escalator
  - Number of rooms: 9
  - Number of seats: 110 to 282 per room
  - Price of 3D glasses: €1.50
  - Student discount: Monday to Thursday, 2 tickets for €15
- (c) Exchange your proposal with the other sub-group (As give their dialogue turns to Bs and vice versa).
- (d) Separately, rate the quality of each suggested dialogue turn. Together, compare your grades and dialogue turns.
- (e) Compute a similarity score with metrics typically used in the next sentence prediction task: BLEU, ROUGE, METEOR, BertScore (script on Arche).
- (f) Compare your suggestions with the 'Gold' turns.

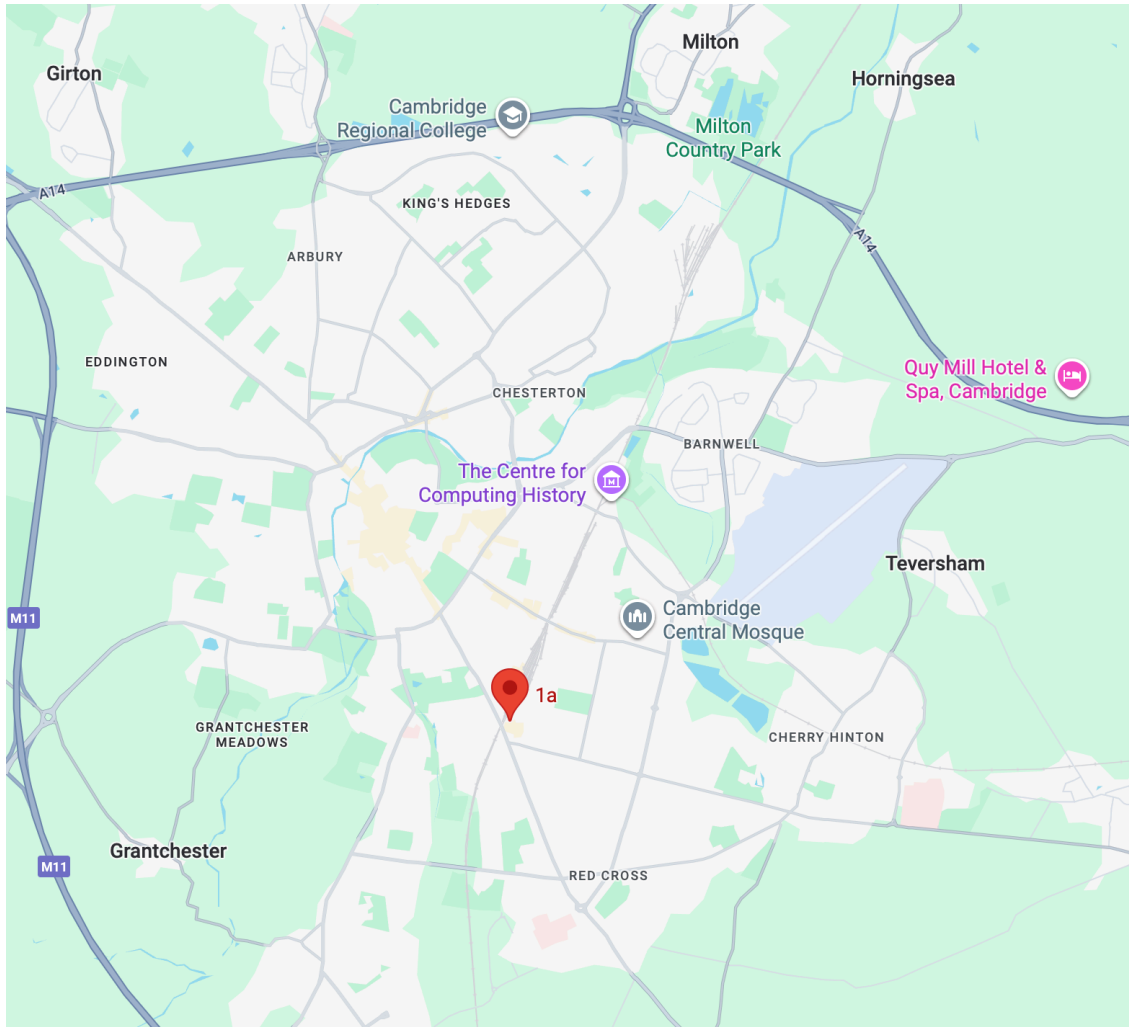


Figure 1: Location of the Cineworld Cinema

### 3 Question salience and answerability

Wu et al. (2024), supported by existing work in theoretical linguistics and psycholinguistic, argue that “readers generate inquisitive questions, seeking information in a conversation or as they read”. However given one piece of text or dialogue, many different questions can be generated. We are interested in determining what questions are more important. Hence, given a piece of text/dialogue, and a question, we try to give a salience rating.

Here is the annotation interface we will use: <https://u2l.fr/questionanno>.

5. On Arche, under Lab 3 > Questions Annotation, download the folder Training, and the folder associated to your lab group.
6. We will work in groups of 3-4 for the ‘training’ part of this annotation.

#### 3.1 Training

7. On the annotation interface, click on “Choisir le fichier” (top left corner) and choose the file `training_1.json` in the training folder.
  - (a) Carefully read the guidelines on the right.
  - (b) For each question (from 0 to 11), pick a salience rating (from 0 to 8).
  - (c) Once done, open the file `training_1_annotated.csv` (on your computer, not in the annotation interface). You can compare your own annotation with three other annotators who explained their choice.
8. On the annotation interface, click on “Choisir le fichier” (top left corner) and choose the file `training_2.json` in the training folder.
  - (a) For each question (from 0 to 29), pick a salience rating (from 0 to 8).
  - (b) Once done, compare and discuss your choices with your group.
9. On the annotation interface, click on “Choisir le fichier” (top left corner) and choose the file `training_3.json` in the training folder.
  - (a) For each question (from 0 to 29), pick a salience rating (from 0 to 8).
  - (b) Once done, compare and discuss your choices with your group.

#### 3.2 Real annotation

You will work alone for this part of the annotation. Keep in mind the discussions you had with your group in the training phase.

10. On the annotation interface, click on “Choisir le fichier” (top left corner) and choose the file `gr{1,2}_1.json` in the Group 1, 2 folder.
  - (a) For each question, pick a salience rating (from 0 to 8).
  - (b) Once done, download your annotation file.
11. Repeat the process for `gr{1,2}_2.json` and `gr{1,2}_3.json`.
12. Upload your three annotation files on Arche under a descriptive name (ID of the file + your name).