

Coding Instructions for Decision Discussion Segmentation of the AMI Meeting Corpus (Version 2.3)

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1 Introduction

For this annotation project, you will be identifying *decision-discussion segments* in AMI meetings. Our goal for collecting these annotations is two-fold: (1) to provide data that we can use to analyze the characteristics of *decision discussions*, conversations wherein the speakers are making decisions, and (2) to provide data that we can use to develop automatic systems for detecting when people are making decisions in meetings.

Previously, annotators created a summary for each AMI meeting, which included a summary of the task-related decisions from the meeting. For example, Figure 1 shows the annotated *decision summary* of Meeting ES2008d. Annotators also identified *decision-related dialogue acts*, the set of dialogue acts in the meeting that support or reflect each of the decisions identified in the decision summary. For example, in the conversation shown in Figure 2, annotators identified dialogue acts (9), (13), (16), and (44) as related to the second decision in the decision summary of ES2008d (Figure 1). However, even with the existing decision annotations, it is still unclear where the discussions of a given decision begins and ends. Thus, your task in this round of annotation is to determine the regions of the meeting dialogue where the meeting participants are making the decisions that **already have been mentioned in the decision summary**, leveraging the hints from the existing decision-related dialogue act annotations.

2 The Task

There are two parts to the annotation task that you will be performing. The first is identifying the decision-discussion segments for each of the decisions listed in the existing meeting summary. The second is labeling each decision-discussion segment.

1. The remote will resemble the potato prototype.
2. There will be no feature to help find the remote when it is misplaced; instead the remote will be in a bright colour to address this issue.
3. The corporate logo will be on the remote.
4. One of the colours for the remote will contain the corporate colours.
5. The remote will have six buttons.
6. The buttons will all be one colour.
7. The case will be single curve.
8. The case will be made of rubber.
9. The case will have a special colour.

Figure 1: Example decision summary of ES2008d

2.1 Decision Discussion Segmentation

On average, an AMI Meeting has around five decisions listed in the summary, each with typically one to three related dialogue acts that have been annotated. The decision-related dialogue act annotations do not tell us exactly when a decision discussion began or how long the decision discussion might last. However, we can use these annotations to roughly gauge where a discussion of the decision is taking place. Starting with this information, we can identify the parts of meetings that are involved in making the decision. We call these *decision-discussion segments*. The discussion for a given decision may be captured by a single segment, or it may involve multiple decision-discussion segments. Below we discuss some of the considerations for marking decision-discussion segments.

2.1.1 Multiple discussion segments for making one decision

The conversation involved in making a decision may at times be broken up by discussions of other decisions or unrelated topics. For instance, the discussion about the target user group decision may start with reviewing the marketing potential of different user groups and then deviate to discussing other product design decisions. The discussion of the target group may then resume after the team has gathered more information, or simply when one of the team members wants this decision to be finalized. In such cases, we usually mark more than one decision-discussion segment. Returning to our example, we would mark one segment for the first part of the discussion, wherein the potential of each user group is reviewed, and a second segments for the resumed part, wherein the decision about target group is being made.

To avoid having too many short segments, disregard the deviations off a decision discussion that are short-lived and with no clear decision being discussed.

2.1.2 Multiple decisions in one decision-discussion segment

Sometimes the meeting participants discuss several different decisions in a very short period of time. meeting participants have talked about more than one decisions during a short period of time. For instance, a decision discussion may begin with the project manager announcing a list of external decisions (e.g., those based on the meeting agenda or conclusions of a previous meeting) and continue with short discussions of each of the decisions. In these cases, we annotate the decision-discussion segments in a *hierarchical* fashion. Specifically, we mark the whole region wherein multiple decisions are discussed as one decision-discussion segment. Then, we mark the individual short discussion of each decision as a separate decision-discussion sub-segment.

2.2 Decision Discussion Labeling

We label each decision-discussion segment with three pieces of information. First, we mark the decision that is under discussion in the segment. We also mark whether the decision under discussion is an *external* decision and whether the segment is a *recap* of a decision. In addition, we provide a blank label that can be filled in to provide additional information about segment, if the annotator feels that it is needed.

The decision labels for the segments will come from the decision summary of the meeting. We discuss the *external* and *recap* labels below.

2.2.1 External Label

External decisions are decisions that were made outside of the current meeting. For example, the meeting participants often start out a meeting with design decisions coming down from their superiors in the fictional company they are working for. Decision-discussion segments about external decisions should be marked with the *external* label.

2.2.2 Recap Label

A *recap* is a short discussion in which meeting participants are simply going over one or more previous decisions. When a recapping conversation takes place right after the main discussion of the decision: we mark the main discussion and the recapping conversation as a single segment, and the segment is **not** marked as a recap. However, when the recapping conversation arises near the end of a meeting, or simply after some other decisions have been discussed, we mark it as a separate segment and label it as a recap. If there is no recapping conversation at all in a decision-related segment, it is of course not marked at a recap.

2.3 Procedure

For each AMI meeting that you annotate, you should begin by using the NXT annotation tool to browse through the abstractive summary of the meeting to get an understand of what is going on. (You may listen to the recordings if you wish.) Next, you will use the NXT tool to read through the summary of the decisions made in the meeting and to find all the decision-related dialogue acts that were highlighted in the transcript. Please do not assume the order of the decisions listed in the summary. The goal at this stage is to familiarize yourself with the discussions involved in making the decisions in this meeting.

The next step is to mark the boundaries of the decision-discussion segments on the transcript. This involves, determining the regions of the conversation in which the meeting participants are making the decisions described in the summary, and the for each region, identifying the dialogue act that marks the beginning of the segment and the dialogue act that marks the end of the segment (the last dialogue act in the segment). Please bear in mind that there is no optimal length for a decision-discussion segment. You should mark the boundary of the decision-discussion segment that you find the most natural. For those decision-discussion segments that contain multiple decisions, you may mark sub-segments to indicate the regions wherein each of the decisions is mentioned and discussed (see Section 2.1.2).

Finally, you must label each decision-discussion segment that you identified. Each segment must be marked with the correct decision label. In addition, use the *external* and *recap* label to mark a segment if one or more of them is appropriate.

2.4 Examples

Let’s take the part of discussion of Meeting ES2008d if Figure 2 for an example. Previously, annotators selected dialogue acts (9), (13), (16), and (44) as the set of dialogue acts related to the decision about the “not getting lost” feature (see Figure 1, decision two). To find the discussion segment boundaries for this decision, we start by reading through the context of the set of decision-related dialogue acts in the transcript. After we understand the conversation surrounding the making of this decision, we then distinguish the region where the speakers are making this decision from the rest of the meeting conversations.

In this example, the need to make a decision about the “not getting lost” feature is first mentioned in dialogue act (9), so it is natural to mark (9) as the beginning of the segment. After dialogue act (47), the participants initiate a new discussion about their preferred feel and functionality, so it is natural to mark (47) as the end of the segment. Last, we label the segment with the decision: *There will be no feature to help find the remote when it is*

misplaced; instead the remote will be in a bright colour to address this issue. This not an external decision or a recap segment, so neither of those two labels are used.

Meeting ES2008b contains an example of a discussion involving several external decisions that we would mark as a single discussion segment. This discussion is given in Figure 3. Previously, annotators selected dialogue acts (2) and (5), dialogue acts (6) and (9), and dialogue act (10) as the dialogue acts related to the following decisions: “*The team will not work with teletext*”, “*The remote will only control televisions*” and “*The corporate color and design must be incorporated into the design of the remote*”. From reading the transcription, we can see these three decisions all came from an external specification of product requirements.

In this case, we mark the whole region where the speakers are talking about the three external decisions as the main decision-discussion segment. We mark dialogue act (1) as the beginning of the segment and dialogue act (28) as the end of the segment. We give this segment three decision labels, one for each of the decisions. Because these decisions are all external, we also use the *external* label to mark this main segment. We then mark three decision-discussion sub-segments: from dialogue act (2) to (5), from dialogue act (6) to (9), and from dialogue act (10) to (25). We label each of these three sub-segments with their correct decision labels. They all are also marked with the *External* label.

In the middle of this meeting, after three different prototypes have been presented, the project manager brings up several design decisions the group have to make. Then the group start talking about the choice of colour. This discussion leads to the discussion of the feature of not getting lost.

- (5) A: Now
 (6) A: That was one thing that we brought up over email
 (7) A: I don't know if you picked up your email
 (8) C: Yeah.
 ===== Beg.-of-Segment =====
(9) A: But um the feature that we considered for it not getting lost.
 (10) B: Right. Well.
 (11) B: We're talking about that a little bit.
 (12) B: When we got that email and we think that each of these are so distinctive,
(13) B: that it it's not just like another piece of technology around your house.
 (14) B: It's gonna be somewhere that it can be seen.
 (15) A: Mm-hmm.
(16) B: So we're we're not thinking that it's gonna be as critical to have the loss.
 (17) D: But if it's like under covers or like in a couch you still can't see it.
 (18) A: Its really
 (19) A: Would it be very difficult to um just have an external device
 (20) A: like i dunno you tape to your to your TV
 (21) A: Um that when you press it
 (22) A: you ha
 (23) A: a little light beep goes off
 (24) A: Do you think that would be conceptually possible
 (25) C: I think it would be difficult technologically
 (26) B: I think
 (27) A: Mm-hmm
 (28) C: Because if your if your remotes lost its probably under the settee
 (29) C: And in that case you can't send an infrared sing signal to it to find it
 (30) A: Mm
 (31) C: So its
 (32) C: I'm not quite sure how it would work
 (33) A: That's true mm kay
 (34) B: Yeah.
 (35) C: And then i wonder if it's if it's more just a gimmick then anything else
 (36) C: Uh i mean
 (37) C: Ho how many times do you really seriously lose your remote control
 (38) C: And would would a device like that actually help you to find it
 (39) B: There might be something that you can do in the circuit board and the chip to make it make a noise or something
 (40) B: But it would take a lot more development than we have this afternoon
 (41) A: Mm-hmm
 (42) A: Okay, that's a fair evaluation.
 (43) A: Getting lost.
(44) A: Um we so we do we've decided not to worry about that for now.
 (45) A: Okay.
 (46) A: Cause well the designs are very bright.
 (47) A: So you're right. They're gonna s~~ick~~ out.
 ===== End-of-Segment =====
 (48) A: but um
 (49) B: so d do people have a preference as far as feel and functionality um
 (50) D: i feel like this is simil or its sort of what already exists

Figure 2: Example of decision-discussion segments in ES2008d

In the beginning of this meeting, the project manager is announcing a number of external decision.

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===== Beg.-of-Main-Segment =====
(1) B: um just want to tell you that you have three new requirements
===== Beg.-of-Sub-Segment (1) =====
(2) B: which is the the first one is that um uh the companys decided
that teletext is outdated uh because of how popular the internet is
(3) B: nobody uses teletext very much anymore
(4) D: kay
(5) B: so we don't really need to consider that in the functionality of
the of the remote control
===== End-of-Sub-Segment (1) =====
===== Beg.-of-Sub-Segment (2) =====
(6) B: um they've also suggested that we um we only use the remote
control
to control the television not the vcr dvd or anything else
(7) B: i think the worry is that if the project becomes too complex then itll affect
um how long it takes us to get it into into production the time to market
(8) D: okay
(9) B: so um, we're just gonna keep it simple and it'll just control the tv
===== End-of-Sub-Segment (2) =====
===== Beg.-of-Sub-Segment (3) =====
(10) B: and the other thing was that the company want the corporate
colour and slogan to be implemented in the new design
(11) B: um i'm not entirely sure what the corporate colour is
(12) B: it might be yellow because there seems to be a lot of yellow everywhere
(13) D: and the slogan like the actual written slogan or just to embody the idea of
the slogan
(14) B: well that's the thing i'm i'm not sure um
(15) B: uh th because on the the company website uh what does it say
(16) D: bout putting the fashion in electronics
(17) B: uh something
(18) B: yeah
(19) A: mm yeah
(20) B: i mean do they is that something they want actually written on it
(21) B: cause it's quite long
(22) B: um or yeah just the idea but i'm not sure
(23) B: so that's something we can discuss as well
(24) B: so those are the three things
(25) B: just not to worry about teletext uh only control the tv and um
and uh incorporate the uh colour and slogan of the company
===== End-of-Sub-Segment (3) =====
(26) B: um so is everybody okay with any of that
(27) B: or do you want me to recap at all
(28) A: nope we're all set
===== End-of-Main-Segment =====
(29) B: right um
(30) B: time for presentations then

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Figure 3: Example of external decision-discussion segments in ES2002b