

Dialogue Function Units for Studying Interaction Across Modalities and Genres: Overview and Annotation Manual Version 2.5

Rebecca J. Passonneau and Owen Rambow
Center for Computational Learning Systems, Columbia University
becky@cs.columbia.edu, rambow@ccls.columbia.edu
With the help of B.J. Edward Kang, Irvin Hiralall, Michal Novemsky, and Edwin White

March 31, 2010

Abstract

This document explains a new annotation schema for complex interaction structure, such as two-party or multi-party dialogue conducted in email and phone calls, or the formal interactions that take place in court rooms. The goal is to propose a single annotation scheme that captures the communication flow for many types of interaction.

This document also serves as an annotation manual.

Contents

1	Introduction: Goal of this Annotation	3
2	Motivation	4
3	Corpora	5
3.1	Corpora for Initial Investigation	5
3.2	Phase 2 Corpus	6
4	Annotation Scheme	7
4.1	Dialogue Acts	7
4.2	Types of Links	10
4.2.1	Preliminaries: Line-numbering for Enron and Loqui	10
4.2.2	Preliminaries: Specific Line-numbering for the Loqui Corpus	14

5	Annotation Procedure	14
5.1	Preamble: Thread-Wide Annotation for Email Threads	14
5.2	Preamble: Dialogue Level Annotation for Loqui Dialogues	15
5.3	Basic Annotation Procedure	16
5.3.1	Identify Utterance Units	16
5.3.2	Assign a Dialogue Act	17
5.3.3	Identify Dialogue Function Units	17
5.4	Specific Annotation Guidelines for the Loqui Corpus	18
5.5	Specific Annotation Guidelines for the Enron Corpus	24
5.5.1	Deciding the Most Appropriate DFU Label	24
5.5.2	Context-Dependent Labeling	24
5.6	Summary: Annotation Instructions	25
6	FAQ: Special Cases	26
6.1	Thank you	26
6.2	Oh	27
6.3	Other Expressions	27
6.4	NoDA	27
7	Example: Enron Thread	28
8	Example: Loqui Dialogue 45	34
9	Appendix: Orthographic Transcription Tagset	38

1 Introduction: Goal of this Annotation

There has been much work on dialogue annotation. The prime area of interest has been the annotation of **dialogue acts (DAs)**, to label the communicative function of each utterance. The repertoire of DAs used within any given labeling schema is usually related to Austin and Searle's writings on speech acts [1, 3]. In addition, based on the 1970s work of Sacks and Schegloff [2], DAs are seen as forming adjacency pairs which represent a limited set of types (such as question-answer).

Most dialogue act annotation languages in use in computational linguistics have developed a large set of dialogue act types. The goals in applying these annotation languages to corpora are to collect quantitative data on the types of dialogue acts speakers use in various types of interaction, to enrich our understanding of dialogue, and to determine what dialogue acts a dialogue system should understand and produce. Very little work has been done on documenting the distribution of adjacency pairs, or the frequency of incomplete adjacency pairs.

Our annotation builds on prior work, but we concentrate on issues which have not received much attention. Our focus is primarily on the adjacency pair, specifically, on the relation of an initiating utterance in an adjacency pair to the responding utterance, and to cases where one member of an adjacency pair is missing or is an unanticipated type of dialogue act. We say that the initiating DA has a **forward link** (or **flink**) to the responding one, which in turn has a **backward link** (or **blink**). As a corollary to our focus on the adjacency pair, we aim to minimize the repertoire of dialogue act types we use.

In the standard case, when a discourse evokes a flink, it will eventually be paired with a blink evoked in a subsequent part of the discourse. An example would be a typical adjacency pair of a question and a response. However, when a dialogue utterance evokes a flink, a corresponding blink is not obligatory, and sometimes does not occur. Similarly, a blink can occur independent of a pre-existing flink. We are interested in understanding these three types of contexts.

1. How can we break up a turn in order to identify a unit consisting of one or more utterances with the same DA type, serving the same communicative function? We call these units **Dialogue Function Units** or **DFUs**.
2. Which DFUs should be assigned a forward link (flink)?
3. How can we capture the potential response to a DFU, independent of whether the expected response occurs? How can we capture what part of the prior discourse a DFU responds to, independent of whether the prior discourse has generated an obvious expectation for a response?

4. What role does DFU structure play in accounting for the distribution of flinks and blinks? How can we relate the DFUs to the evolving structure of the interaction, and in particular to its “outcome” - such as whether a transaction is completed successfully?

We can look at relations among DFUs that consist of blink/flink pairs, DFUs that stand alone, and the overall structure of the interaction.

We are investigating these questions by examining contrasting types of interaction that have distinct types of outcomes, as well as distinct constraints on when and where full or partial adjacency pairs can occur. Our first annotation manual arose from an analysis of a small corpus exemplifying the first three types listed below. Concurrent with releasing this second version of the manual, our focus has shifted to annotating a larger number of interactions in the third and fourth categories below.

- switchboard conversations (telephone speech; non-task oriented; sequential DFU pairs)
- court transcripts (speech; task-oriented interaction with institutionalized rules for turn taking; DFUs embedded within DFUs)
- email threads from the Enron corpus (email; task-oriented interaction; concurrent DFU pairs)
- library patrons’ telephone calls to request recorded books (telephone speech; task-oriented; sequential DFU pairs with some embedding)

Our approach is inspired by a method we developed for identifying overlapping content in summaries: the granularity is not given a priori but determined by the text(s) to be annotated. Further, annotators give each DFU a short description, which the annotator uses as justification for his or her annotation choices.

Lastly, as for this version of the manual, it explains how to annotate both the Loqui and Enron corpora after having reviewed different annotators’ comments.

2 Motivation

The goals of our annotation effort are to enable research into the following questions:

1. What are the differences in the organization of interactions that vary in modality, genre, etc.? What are the similarities in the DA to DA links across these modalities and genres?

More specifically, for spontaneous face-to-face dialogue among peers, adjacency pairs are generally sequential, turns can be quite simple, the interaction is mixed-initiative, and implicit norms govern turn taking. For other types of interaction the norms can be quite different, e.g., for adjacency pairs to be non-sequential (email), and for institutionalized norms to govern turn taking (court transcripts).

2. To develop models that can identify interactions in extended dialogues even in modalities where they are not simple to detect. This is useful for information extraction and summarization.
3. To develop a predictive model of what gets responded to how, meaning when interlocutor1 says X, what range of behaviors are more likely for interlocutor2. This model should also cover modalities and genres where adjacency pairs are not simple to detect.

3 Corpora

3.1 Corpora for Initial Investigation

Before beginning to design our annotation, we reviewed several dialogues and selected three that contrast in ways that we want our annotation to capture. The three dialogues we selected to annotate first are:

1. Switchboard discussion of judicial system and sentencing (SW)
2. Court transcript of the Dover trial on intelligent design (available from the ACLU Pennsylvania website¹ (DT)
3. Enron email thread (ETh)

The SW discussion is spontaneous conversation, but the topic was “assigned” for the purposes of collecting speech data, and was not generated by the interlocutors. As a consequence, the dialogue topics have a wandering quality, and the overall dialogue lacks the focus that the other two interactions have. This is reflected also in certain types of utterance functions we observe that do not occur in the highly focused task-oriented ETh and DT interactions. For example, there are non sequiturs, spin-off topics, completions of the other party’s utterance, and re-statements. Two other key differentiators are first that the interlocutors have equal freedom in the kinds of utterances they can make, and that the SW interaction is

¹<http://www.aclupa.org/legal/legaldocket/intelligentdesigncase/dovertrialtranscripts.htm>

spontaneous (unplanned), real-time dialogue; thus, DAs follow each other in sequential adjacency pairs. This quality affords an opportunity for spin-off topics and other completions that the other interactions do not afford.

The DT interaction differs from both ETh and SW in having explicit “rules of the game” regarding who can initiate an adjacency pair (the lawyer questions the witness, not vice versa), and other rules for the interaction (such as what can be said, what can be objected to, etc.). It is far less spontaneous; both the lawyers and the witnesses prepare strategies and stances in advance, as well as specific speeches to make. However, we observed a very interesting sequence in which the trial attorney attempts to get a witness to say something that the witness refuses to agree to; thus, while the attorney has overt control over the interaction, the witness can use the “rules of the game” for her own ends. Also, the witness is occasionally allowed to volunteer information.²

The ETh interaction is less one-sided and argumentative than the court transcript, and more focused than SW. Like DT, it is task-oriented, but unlike DT, it is relatively spontaneous, and does not have “explicit” rules. Here, the different status of the two interlocutors is not so apparent as in DT; either party has freedom to initiate a wide range of DA types, but presumably, there is a status difference that is reflected less overtly in the content and form of the interaction. The most salient difference between an email interaction and the two face-to-face verbal interactions (SW and DT) is that the adjacency pairs are not sequential.

We developed our first annotation manual using the ETh interaction because it was the most complex and non-linear in the structure of the DFU pairs, and probably the most open-ended in terms of which “openers” (e.g., questions) the interlocutor chooses to respond to. We hypothesized that if we could count for what’s going on in ETh at this level, then we could probably also account for DT and SW. This has turned out to be the case.

3.2 Phase 2 Corpus

For the next phase in refining our annotation scheme, we decided to focus on a set of ETh threads, and to select a task-oriented telephone-based dialogue corpus as a contrasting case.

²Edwina Rissland has spent a decade learning about and studying legal reasoning and argumentation, such as the types of conventional “moves” lawyers use in constructing arguments (e.g., something she calls “slippery slope” which has to do with establishing where the boundaries are in deciding about a given instance, e.g., where the law clearly states that the state should not support one religion over another, and this reasoning can be used to bar a crèche display at a courthouse or other public building; however, what if the crèche is an ornament on a Christmas tree and is too small for the details to be discerned?).

We have suspended efforts on annotating more court transcripts; the court transcript we were using (DT) presented numerous unanticipated annotation complexities for our annotators.

We have also suspended efforts on annotating the switchboard corpus, due to its artificiality. Speakers were recruited, did not know each other in advance, and were assigned topics to discuss.

A telephone bandwidth speech corpus has obvious utility to the spoken dialogue community, so we have elected to annotate transcripts from the human-human real-world subset of the Loqui corpus (LCS1 for Loqui Corpus Subset 1), which is under development by one of the co-PIs.³

4 Annotation Scheme

This section contains the description of the annotation scheme and procedure.

4.1 Dialogue Acts

Labeling the DA type answers the questions: What action does this DFU perform with regard to the dialogue that it is part of? How does the utterance of this DFU change the worlds (cognitive states) of the speaker/writer and of the hearer/reader? Dialogue Acts (DAs) are always about the intended effect, not about the linguistic form. For example, a *Request-Information* DA can be a syntactic question (*Where is Petaluma?*), a statement (*I wonder where Petaluma is*), or an imperative (*Tell me where Petaluma is!*), but in all cases the DA is the same.

- *Inform*: This DA conveys information. It covers many different types of information that can be conveyed:
 1. Answers to questions *Request-Information*. A blink is obligatory to the *Request-Information*.
 2. Elaborations on previous DAs (by the same speaker/writer, or by another). A blink is obligatory to that DA (which should also be an *Inform*).
 3. Signaling that a request for action (*Request-Action*) has been completed. A blink is obligatory to the *Request-Action*.

³This subset of the Loqui corpus consists of 82 anonymized calls made by patrons of the Andrew Heiskell Talking Book and Braille Library to librarians on Reader's Advisor duty. Most borrowing (and other) transactions between patrons and the library are handled by telephone; items are shipped and returned by mail. The Loqui corpus will be released at the end of the Loqui project, circa 2010.

4. A DA in an email which signals that there is an attachment (or which points to information elsewhere, for example in a URL), and the attachment is the actual information. The attachment is not annotated, but the DA indicating that it is included is an *Inform*. No blink or flink is necessary in this case.

Apart from the cases listed above, an *Inform* does not carry obligatory blinks or flinks with it.

- *Affirmative*: This DA is for a positive response to a yes/no question, and is often a response to *Request-Action* or sometimes *Request-Information*. A Blink is necessary when it is a response to a previous DA.
- *Accept*: In this DA, the speaker/writer accepts a proposal or agrees to a suggestion offered in a previous DA. Note that it differs from the next type—*Commit*—where the person making the commitment has agreed to perform some action. A Blink is obligatory to the *Request-Information* or *Request-Action* that is being responded to (same as the DA *Reject*).
- *Commit*: This DA commits the speaker/writer to performing a (linguistic or non-linguistic) task.

A blink is obligatory if this is in response to a previous *Request-Information* (“good question, I will find out the answer and get back to you”) or *Request-Action* (“sure, I will make coffee, no problemo”).

- *Reject*: In this DA, the speaker/writer rejects a proposal or a task (linguistic or non-linguistic) assigned or offered in a previous DA. Thus a *Reject* can be a refusal to *Accept* or a refusal to *Commit*.

A blink is obligatory to the *Request-Information* (“I will not answer that question”) or *Request-Action* (“unfortunately, you will need to make your own coffee”) that is being responded to.

- *Request-Information*: This DA obliges the hearer/reader, or opens an option to the hearer/reader, to provide information (either facts or opinion), either in the dialogue or through another form of communication.

Request-Information establishes a flink (which can remain unresolved if no one answers the request, or, normally, is paired with an *Inform* blink).

- *Request-Action*: This DA obliges the hearer/reader, or opens an option to the hearer/reader, to perform some non-communicative action, i.e., an action that cannot in itself be part of the dialogue. Examples of such actions include

writing a report (which may subsequently be sent by email), mowing the lawn, or making coffee.

Request-Action establishes a flink (which can remain unresolved if no one answers the request, or, normally, is paired with a *Commit* blink, or an *Inform* blink, where the *Inform* conveys the completion of the task).

- *Perform*: These are classic performatives, such as swearing and firing: the action is achieved in the utterance itself (“You’re fired”, “I swear that I did not commit the crime”). Note that not all uses of performative verbs such as *swear* are necessarily performative. *Perform* also includes jokes or anecdotes, where the goal is not the conveying of information, but entertaining the hearer/reader (for example, by making him or her laugh). There is a fine line - sometimes, an anecdote both entertains and informs.

A blink or flink is not obligatory.

- *Conventional*: These are greeting, introductions, expression of thanks, etc.

A blink or flink is not obligatory.

- *Backchannel*: This DA is about the process of communication itself. Use this in these cases:

1. The speaker/writer acknowledges the understanding or receipt of some prior communication. There should not be a blink to that DA.
2. The speaker/writer signals that the speaker/writer is listening/reading. There should be no blink.

Note that some *Backchannel* communications are followed by a request for clarification; these requests are separate DAs which should be labeled *Request-Information*.

- *NoDA*: This is used for text which does not have a dialogue act, such as signatures.

There cannot be a blink or flink.

- *Offline*: In email threads (but less so blogs or spoken dialogues) there is an act of communication which did not happen in the email thread itself. For example:

M1.1 It was good talking on the phone to you just now.

M1.2 The answer to your question is that Enron cannot pay anything now.

Here, M1.2 is clearly an *Inform*, but there is no question in the email thread. If this happens, add *AnswerOffline* to the speech act:

M1.1 It was good talking on the phone to you just now.
[Conventional: previous phone call]
M1.2 The answer to your question is that Enron cannot pay anything now.
[Inform-AnswerOffline: Enron cannot pay]

- *Sidebar*: This DA is where there is an actual conversation with one of the participants—caller and librarian—but one that involves a third party, and its primary function is to differentiate the conversation of interest from “sidebar” conversations. In the example below, instead of engaging in a conversation with the librarian about requesting books, caller#1 asks an unknown person to get him or her a bag of potato chips. This conversation between caller#1 and the unknown person clearly does not involve the librarian. Therefore, this exchange is labeled as sidebar to mark it as irrelevant to the conversation of interest. For example:

Dialogue 56

31.1.0 caller#1 could you do me a favor
31.2.0 caller#1 getting those two uh
31.3.0 caller#1 forty five cent bags of potato chips
32.1.0 caller#2 <VB>⁴ okay uh I'll I'll see <TN>
if I can do that <VB>
33.1.0 caller#1 oh thanks <TN>

4.2 Types of Links

4.2.1 Preliminaries: Line-numbering for Enron and Loqui

Each DA links can be assigned one or more links. This step is best done in the following order:

⁴For the list of example tags in angle brackets, refer to Section 9 Appendix: Orthographic Transcription Tagset

1. Determine whether there is a **forward link** or **flink**: does this DFU set up an expectation in the dialogue that the reader/hearer perform a certain action? This action can be a dialogue act (respond to a question) or a non-dialogue action (perform a task).

A flink is simply added as `Flinkname` in a new line after the DFU, where *name* is the name of the DFU, namely *m.n* in the case of the Enron Corpus and *m.n.p* in the case of the Loqui Corpus, if it is a single segment. (The different naming/numbering systems are explained below.)

Or if it is comprised of several segments ranging from $m_1.n_1(.p_1)$ to $m_2.n_2(.p_2)$ where $m_2.n_2(.p_2)$ is the last line of the many lines making up the DFU, it should be marked as `Flink $m_2.n_2(.p_2)$` . Consider `Flink5.4.0` found in the following example:

Dialogue 37

```
5.3.0 librarian#1 do you want to leave a message
5.4.0 librarian#1 or is there something I can
help you with
[Request-Information: whether caller wants to
leave a message or if librarian can help caller]
Flink5.4.0
6.1.0 caller#2 <BN> umm <BN>
[NoDA]
6.2.0 caller#2 yea that I wanted to know if you
have uh the um <BN>
6.3.0 caller#2 what is it uh
6.4.0 caller#2 Black Reconstruction by uh W E
B DuBois
[Request-Information: first book request, ``Black
Reconstruction" by W.E.B. DuBois]
Blink5.4.0
Flink6.4.0
```

Note that depending on the DA you have assigned to the DFU, you have certain choices:

- Some DAs necessarily set up a flink. These are: *Request-Information* and *Request-Action*.
- The *NoDA* and *Backchannel* never have a flink; nor do *Sidebar* and *Offline*

- Some DAs may or may not have a flink - you need to judge from the content of the DFU. These are all remaining DAs: *Inform, Accept, Affirmative, Commit, Conventional, Reject* and *Perform*.
2. Determine whether there is a **backward link** or **blink**: does this DFU relate to a previous DFU, by performing an action which responds in some sense to the previous DFU? A DFU can have both a flink and a blink.

A blink is added as `Blink`*fblink-name* in a new line after the DFU, where *fblink-name* is the name of the DFU to which this blink links back. As before, it is written as *m.n(.p1)* if it is a single segment, or *m₂.n₂(.p₂)* if it is comprised of several segments, ranging from *m₁.n₁(.p₁)* to *m₂.n₂(.p₂)*. We continue the example from above (the flink example) with the corresponding blink:

Dialogue 37

```
5.3.0 librarian#1 do you want to leave a message
5.4.0 librarian#1 or is there something I can
help you with
[Request-Information: whether caller wants to
leave a message or if librarian can help caller]
Flink5.4.0
6.1.0 caller#2 <BN> umm <BN>
[NoDA]
6.2.0 caller#2 yea that I wanted to know if you
have uh the um <BN>
6.3.0 caller#2 what is it uh
6.4.0 caller#2 Black Reconstruction by uh W E
B DuBois
[Request-Information: first book request, ``Black
Reconstruction" by W.E.B. DuBois]
Blink5.4.0
Flink6.4.0
```

Note that the current DFU is 6.1.0-6.4.0, but the name of the blink is `Blink5.4.0`, which shows that it is answering a question that was asked in DFU 5.4.0.

If you add a blink, there are two options:

- The blink corresponds to an existing flink. This is the case in our example that we have been using. No further action is needed other than noting the blink.

- The blink links back to a DFU which does not have a flink. This can happen when the previous DFU did not have an obligatory flink. In this case, please add the flink in the usual way to the original DFU, but call it `sflink` for **secondary forward link**, as it is evoked only by a later blink.

Note that depending on the DA you have assigned to the DFU, you have certain choices:

- Some DAs necessarily set up a blink. These are *Affirmative* and *Accept*.
- *NoDA*, *Backchannel*, and *Sidebar* cannot have blinks.
- For some DAs, you need to carefully understand the nature of the DA in order to choose whether or not to add a blink. This is the case for *Inform* and *Commit*.
- The remaining DAs may or may not have a blink - you need to judge from the content of the DFU.

Here is a complex example of a blink:

```
M5.2 On payment...
M5.3 We are having to forecast five days out.
M5.4 If I don't know today, I cannot pay Pasadena
until next Thursday
[Inform: 5 day forecast rule]
Blink2.7
Sflink5.4
...
M6.1 thats fine
[Inform: ok]
Blink5.4
```

Here, when first annotating DFU 5.2-5.4, it was identified as an *Inform* which is an answer to a previous question. So the DFU got a blink. But there was no reason to add a flink, as the reader is under no obligation to respond or to perform any other action. However, as the second part shows, the reader did respond, by letting the writer know that not paying till Thursday is okay. Thus, we add `Blink5.4` from `M6.1` that links back to `M5.4`, and we add `Sflink5.4` at `M5.4`.

4.2.2 Preliminaries: Specific Line-numbering for the Loqui Corpus

In the case of the Loqui Corpus, the principle of assigning the types of links (flink, blink and sflink) remains the same, but the numbering system following the link differs slightly in order to indicate the overlap in speech that does not occur in e-mails.

Unlike the name of the DFU in the Corpus that includes two fields (e.g., $m_1.n_1$ or $m_2.n_2$), there are three fields: the first changes when the speaker changes; the second changes when the segment (line) changes; and the third is 0 unless there is overlapping speech, in which case it alternates between 1 and 2, depending on who is speaking. Also, it is also important to note that when there is overlapping speech, the first two fields will not change, since this one unit of time containing more than one person speaking simultaneously is considered one turn. Here is an example of multiple overlaps in a row:

```
29.1.1 caller#2 oh my goodness [os <CHKL> oh eo]
29.1.2 librarian#1 [os <CHKL> eo] a can keep it
until we discover why
29.2.1 caller#2 okay thank you very [os much now
eo]
29.2.2 librarian#1 [os you welcome eo] and have
a nice
29.3.1 caller#2 [os you eo] too buh bye
29.3.2 librarian#1 [os day eo]
```

The number in the first field remains the same throughout only when there are multiple overlaps in a row. The number in the second field increases after each turn, and the third field switches between 1 and 2 to indicate the speaker of that overlapping speech.

5 Annotation Procedure

5.1 Preamble: Thread-Wide Annotation for Email Threads

The annotator starts out by reading through the entire thread (email, blog, or a series of conversations among the same people). Each file contains one thread, so there is no judgment to be made what a thread is. Then, choose the type of thread it is: What, in general, is the purpose, or content type, of this discussion thread?

- **Information-Fact:** The thread purpose is to convey or exchange information which is considered by all to be a fact.

- **Information-Opinion:** The thread purpose is to convey or exchange information which is considered by some or all to be opinion.
- **Information-Unsure:** Mark this general label if the thread purpose is clearly information, but you are unsure whether that information is fact or opinion.
- **External-event-planning:** Planning events that will take place outside of the email exchange, such as a meeting, or performance of a task.
- **Collaboration-on-information-product** Collaboration on a document or information. Mark this if the work will be done “inside” the email communication channel.
- **Social:** The main purpose of the thread is simply being social.
- **Other:** None of the above applies.

Then, enter in freehand a very short description of the topic of the thread. Use the list below as a guide (it may be useful for Enron in particular), but feel free to enter your own one- to three-word topic.

Social, Personal nonsocial, Internal project, Internal policy, Energy trading, Energy regulation, Business partnership, Legal advice, Human resources, Meeting minutes

5.2 Preamble: Dialogue Level Annotation for Loqui Dialogues

Add a tabular summary at the top of each DFU annotation for a Loqui dialogue that documents all the *book requests*, meaning each time a patron requests an item. There should be three columns headed “Lines”, “Request”, and “Successful”; use the following format:

Line	Type of Request	Successful
5.4.0	Auth	Y
7.1.0	Title	Y
10.2.0	RC	Y
15.1.0	Other	Y

The purpose of the table in the preamble is to summarize:

- Patron requests, not librarian requests
- Patron requests for reading material, not other types of requests
- Patron requests that are smoothly successful in that the librarian explicitly or implicitly appears to understand the request with no need for repetition by the caller, clarification by the caller, or any grounding or remediation.

For each book request, identify the line number in column #1, identify the type of request in column #2, and in column #3 and indicate whether the librarian appeared to *understand* the request on first hearing it. The types of requests are RC (for a request by RC number), BR for a request by Braille number, Title (for a request by book title), Auth (for a request by author), Other (for a request for an item in some other fashion), and any combination of the above, e.g., *Auth*, *AuthOther*, *AuthTitle*, *Other*, *RC*, *Title*, *TitleAuth* and so on.

To reiterate, the contents of each column should be:

1. Column #1: Line number in which the caller initiates the first request
2. Column #2: Type of request (e.g., RC, Auth, etc.)
3. Column #3:
 - “y” if the librarian’s response is an explicit or implicit indication that the requested item is being looked up, e.g., “okay, got it” or “okay”
 - “n” if the librarian’s response is an implicit or explicit indication of a need for confirmation or clarification
 - put “n/g” for “no with grounding” if it is a correct repetition (grounding behavior only, not clarification) with no prosodic or other indicator that the librarian is attempting to elicit confirmation from the caller

5.3 Basic Annotation Procedure

5.3.1 Identify Utterance Units

The first step in the annotation consists in identifying **utterance units**. These are roughly tensed clauses that are an independent orthographic sentence (i.e., a sentence as delimited by a period⁵), or that are introduced by coordinating conjunctions. A clause unit should never be longer than an orthographic sentence. The exact definition of a clause unit is not critical for the sake of this annotation.

⁵Note that in transcriptions of informal spoken text, periods are used rarely; the court transcripts contain periods because the speech is more formal in nature, and is transcribed by a court stenographer.

Each clause unit is assigned an id. For the Eth, if m is the sequential position of the email message and n is the sequential position within the email of the utterance, then the label for the utterance unit is $Mm.n$. For example, M1.2 is utterance unit 2 in message 1.

5.3.2 Assign a Dialogue Act

Conceptually, each utterance unit is assigned a simple dialogue act (DA) (*Request-Information, Inform, Commit, ...*) from a very small set of DAs. (Note that in practice, this step happens in conjunction with the step described in the next subsection.)

The choice of DA is augmented with a freehand description of the function or content. The DA information is written in square brackets below the utterance unit. It is of the following form:

```
[Label: Description]
```

Here, *Label* names the DA type (e.g., *Request-Information, Inform, Commit*), and *Description* is a natural language description of the content of the request, suggestion, etc. Here is an example:

```
M1.2 I have completed the invoices for April, May  
and June.  
[Inform: of invoice completion]
```

5.3.3 Identify Dialogue Function Units

The utterance units are grouped into DFUs according to the following simple rule: if two adjacent utterance units have the same DA annotation (i.e., the same label and the same or similar description), then they are part of the same DFU. Because the description is freely chosen by the annotator, it is up to the annotator to decide whether two utterance units are in the same DFU or not. To minimize disagreement, we use the following heuristic:

DFU Extent Heuristic: two utterance units are part of the same DFU if they have the same DA tag, if they contribute to the same more general communicative act, and if they can be given a coherent description which is not simply the conjunction of the descriptions of the two units.

We illustrate this heuristic with an example:

M1.2 I have completed this invoices for April, May and June

[Inform: invoice completion]

M1.3 and we owe Pasadena each month for a total of \$3,615,910.62

[Inform: debt]

M1.4 I am waiting to hear back from Patti on May and June to make sure they are okay with her.

[Inform: pending approval from Patti]

Here, we have made each utterance unit its own DFU, each with different DA annotations. While this is reasonable, there is also a reasonable interpretation under which these three inform acts are in fact related to the *same content*, namely the writer's activity on invoices. Since such an interpretation is also reasonable and leads to a larger DFU, we prefer it:

M1.2 I have completed this invoices for April, May and June

M1.3 and we owe Pasadena each month for a total of \$3,615,910.62

M1.4 I am waiting to hear back from Patti on May and June to make sure they are okay with her.

[Inform: pending confirmation of the completed invoice]

5.4 Specific Annotation Guidelines for the Loqui Corpus

The following FAQs came up when new annotators looked at the following excerpts:

1. Prosody in Recording

Annotating the Loqui Corpus is particular in in that the recording of the human-human dialogue (i.e., the librarian and the caller) provides more information than the textual reproduction of the conversation, and it is crucial to pay attention to this extra information salient through the prosody of each speaker's utterance. For instance, refer to the following example:

Dialogue 2

70.1.0 librarian#1 every cassette has four sides

70.2.0 librarian# <P>

71.1.1 caller#1 every cassette has [os four sides
 eo]
71.1.2 librarian#1 [os yes eo]
...
71.3.1 caller#1 well I would [os think two sides
eo]
71.3.2 librarian#1 [os <NU> eo]
71.4.1 caller #1 play on one side play on the
other [os side eo]
71.4.2 librarian#1 [os no no eo] no
72.1.0 librarian#1 every cassette will have four
sides

In this example, it is possible to see how listening to the prosody can alter the DFU label. In line 71.4.1, the caller says what she believes to be the case about how to play cassettes, but in line 71.4.2, the librarian responds, “no no no,” and corrects her. Here, the caller uses a declarative intonation in conveying her version of how to play the cassettes and consequently merits an [Inform], but if the prosody of the caller were posed as an interrogative, the labeling would have been [Request-Information].

Furthermore, consider another example:

Dialogue 27

1.1.0 librarian#1 yes how can I help you
[Request-Information: how can librarian help
caller]
Flink1.1.0
2.1.0 caller#1 may I order some books please
[Request-Information: can caller order books]
Blink1.1.0
Flink2.1.0
3.1.0 librarian#1 okay
[Backchannel]

If you listen to the librarian#1, her prosody clearly indicates that the “okay” is not an answer to the previous question. Rather, “okay” serves as a dis-course cue and merits its label as [Backchannel]. In other words, while annotating the Loqui corpus, it is crucial not only to read and understand the context of the conversation, but also to listen to the actual recording of the conversation to obtain information only available through the prosody.

2. When should one use *Inform-Start*, *Inform-Continue*, and *Inform-Finish*: (*##,##*)? Consider the following example:

Dialogue 27

```
5.2.0 librarian#1 may I have your last name
[Request-Information: librarian requests patron's
last name]
Flink5.2.0
6.1.0 caller#1 <B> <LASTNAME>
6.2.0 caller#1 <LN-INITIAL-1> <LN-INITIAL-2>
<LN-INITIAL-3> <LN-INITIAL-4>
7.1.1 caller#1 [os <LN-INITIAL-5> eo]
[Inform-Start: caller gives last name and spelling]
7.1.2 librarian#1 [os <LN-INITIAL-1> eo] <LN-INITIAL-2>
<LN-INITIAL-3> <LN-INITIAL-4>
[Backchannel: grounding, librarian repeats
all but last initial of spelling]
7.2.1 caller#1 <LN-INITIAL-5> <LN-INITIAL-6>
<LN-INITIAL-7> <LN-INITIAL-8> [os <LN-INITIAL-9>
<LN-INITIAL-10> <LN-INITIAL-11> eo]
[Inform-Continue: Spelling of last name continued
from last mentioned initial]
7.2.2 librarian#1 [os <LN-INITIAL-5> <LN-INITIAL-6>
eo] <LN-INITIAL-7> <LN-INITIAL-8>
[Backchannel: grounding, which initials were
understood]
8.1.0 caller#1 <LN-INITIAL-9> <LN-INITIAL-10>
<LN-INITIAL-11> <P> <BN> <FIRSTNAME>
[Inform-Finish: (6.1.1, 6.2.1, 7.1.0): Continuation
of lastname's spelling and first name]
Blink5.2.0
```

When the librarian asks for the caller's last name, it takes more than one try for the librarian to be completely satisfied with the information. For instance, the librarian exhibits the usual backchannel-grounding behavior of repeating what the librarian has heard from the caller. Therefore, the completion of DFU 5.2.0 does not occur until the line number 8.1.0, which is why *Inform-Start*, *Inform-Continue*, and *Inform-Finish*: (*##,##*) are necessary to show that this specific DFU spans for more than one line of DA. To note, it is possible to have multiple Continues depending on the situation. This pattern

of Start/Continue/Finish can be also used with other DAs such as *Request-Information*.

3. Is it possible to have multiple blinks to one flink?

Dialogue 68

6.1.0 librarian#1 <BN> okay give me one sec <BN>
[Inform: hold on]
6.2.0 librarian#1 <BN> alright if they're all
fifty nine then we can just
7.1.1 librarian#1 <BN> [os read eo] off the last
three <BN>
[Request-Information: the last three numbers
of the books]
Flink7.1.1
7.1.2 caller#2 [os yes eo]
8.1.0 caller#2 <BN> nine sixty <BN>
[Inform: last three numbers are nine sixty]
Blink7.1.1
9.1.0 librarian#1 okay <P>
[Backchannel]
10.1.0 caller#2 <BN> nine one four <BN>
[Inform: last three numbers are nine one four]
Blink7.1.1
10.2.0 caller#2 <IR> <BN> eight nine five
[Inform: last three numbers are eight nine five]
Blink7.1.1
11.1.0 librarian#1 okay
[Backchannel]

It is possible to have multiple blinks to one flink. As the passage above illustrates, there are three blinks linking back to one flink, namely Flink7.1.1. The librarian specifically asks the caller to read out loud the last three RC digits of the desired books as to expedite the process of ordering them. Consequently, when the caller provides the RC numbers consecutively, they should be treated as a list. This list as a whole is an answer to the librarian's original request for all of the caller's RC numbers.

However, consider the rest of the same passage:

Dialogue 68

11.2.0 librarian#1 I'm gonna to put someone else

on hold
 11.3.0 librarian#1 I'll be right back okay
 [Inform: librarian will be right back]
 Sflink11.3.0
 12.1.0 caller#2 <P> good <P>
 [Inform: okay]
 Blink11.3.0
 13.1.0 librarian#1 <TN> <P>
 [NoDA]
 13.2.0 librarian#1 okay <P>
 14.1.1 librarian#1 the last [os one was eo]
 [Request-Information: last three numbers for
 the final book]
 Flink14.1.1
 14.1.2 caller#2 [os and the last one eo] is
 15.1.0 caller#2 five <P> four nine
 [Inform: last three numbers of the final book
 are five four nine]
 Blink14.1.1
 16.1.1 librarian#1 five four [os nine eo]
 [Backchannel: grounding, librarian repeats last
 three numbers]
 16.1.2 caller #2 [os and eo] eight nine five
 [Inform: the last three numbers are eight nine
 five]
 Blink7.1.1

While the caller is providing different RC numbers, the librarian gets a phone call and goes offline to put the other caller on hold, and the librarian requests the caller to repeat the last RC number given in order to resume the previous sequence of receiving the RC numbers. Thus, Blink14.1.1 is not a blink back to the original Flink7.1.1 since the caller is responding to the librarian's request after the interruption (i.e., Flink14.1.1), yet once the pattern is resumed, the old Blink7.1.1 gets reestablished (specifically in line 16.1.2) to indicate that the order before the interruption has been restored in the understanding between the caller and the librarian.

4. What is [Backchannel: grounding,...]?

Sometimes the confusion between backchannel and inform comes up in what Herbert H. Clark referred to as "grounding" behavior, where speak-

ers indicate to each other what their current state of understanding is, in order to establish the degree of “common ground” (e.g., in his 1996 book Using Language), so we have an annotation for backchannel that exhibits “grounding.” You would put [Backchannel: grounding, . . .] but see below for more detail.

Dialogue 27

17.1.0 caller#1 oh okay
17.2.0 caller#2 ummm
17.3.0 caller#2 five nine zero six nine
[Inform: book request number one]
Blink16.1.0
18.1.1 librarian#1 <P> one second
19.1.1 librarian#1 <P> five nine zero six [os
nine eo]
[Backchannel: grounding, librarian repeats caller’s
number]
Sfink19.1.1
19.1.2 caller#2 [os yeah eo]
[Inform: number was correct]
Blink19.1.1
20.1.0 caller#2 five nine zero eight six
[Inform: book request number two]
21.1.0 librarian#1 <BN> <P> eight six
[Backchannel: grounding, librarian repeats part
of caller’s number]
22.1.0 caller#2 five nine zero nine zero
[Inform: book request number three]

In this excerpt, the librarian#1 has two turns where she repeats all or part of the RC number. This would be labeled as [Backchannel: grounding, ...] where you fill in your own description at the ellipsis. In the first case above, in 19.1.2 the caller explicitly confirms that the librarian was correct; here, because the caller confirmed the “grounding” behavior, the backchannel at 19.1.1 would get an Sfink. Otherwise, you would not have one, as in 21.1.0 and 22.1.0, where after the backchannel in 21.1.0, the caller just goes on with the next request.

5.5 Specific Annotation Guidelines for the Enron Corpus

This Enron thread (the entire thread is provided in Section 7 Example Thread) provides insight into the work of an annotator. Instead of simply assigning a DFU label from one dialogue act to the next, the annotator not only has to decide the appropriate label, but also has to consider the entire context of the communication. In other words, the annotator must concern herself with the role of each dialogue act, placed within the whole context of a thread.

5.5.1 Deciding the Most Appropriate DFU Label

M3.3 Please let me know if you need anything else.

With this utterance, Kim is asking Sara to let her (Kim) know if she (Sara) needs more information. The issue here is that though this is not a question syntactically, it does serve the function of a question to which Sara can either respond or not. However, to label this as a [Request-Information] is inadequate to capture the whole function of the utterance. Kim is not only asking Sara to respond to her offer, she is also giving notice that she is available to provide help. In other words, Kim is requesting information from Sara, informing Sara of her availability, and committing herself to provide whatever help Sara requests. However, the annotator must choose a single DA type. The most appropriate label for this utterance given the context is [Inform]. [Inform] captures Kim's offer and her intention to commit, and allows Sara the option of responding or not.

5.5.2 Context-Dependent Labeling

M5.2 could you provide the name, phone number, etc.
of your bond council for our attorney, Sara Shackleton?

In this case, if an annotator were simply to annotate this line without considering the whole thread, it would mostly likely be labeled as a [Request-Action]: at first glance, it appears that Kim (the sender) is asking Steve (the recipient) to do something, i.e., to provide information to Sara, and that Kim may not be interested in the information for her own sake. However, if we consider the entire context, we must take into account the fact that Sara has tried repeatedly to inform Kim of her need to find out the information regarding the bond council, and that Kim is finally addressing this need, though perhaps without fully understanding it. Note that she says in her later e-mail, "I thought we were going to do that at our own expense." This statement suggests that Kim thought that she and Sara would be working together without involving a third party, the bond council. The fact

that Kim relegates the responsibility of informing Sara to Steve indicates her reluctance to see the relevance of the information, but at the same time, we can see that she is executing the request that Sara has been promoting (to get the bond counsel's contact information) and is therefore making a request for information as if it were for herself. Though there is an element of conjecture in this interpretation, much consideration of the context led us to agree that this DA should be labeled [Request-Information]. There is another piece of evidence that this DA should be labeled as a [Request-Information] rather than [Request-Action], namely the inherent ambiguity of the sentence. There are two ways to read it: 1) Could you provide (*me*) the name, phone number, etc. of your bound council (*where the information is ultimately intended*) for our attorney, Sara Shackleton (*e.g., so that I can send her the information myself*)? 2) Could you provide the name, phone number, etc. of your bond council *to* our attorney, Sara Shackleton?

In sum, it is important for an annotator to pay attention to each dialogue act and its main function, and equally important to consider its place in the entire context of the communication. This is especially true in the case of Enron where there is potentially a long thread.

5.6 Summary: Annotation Instructions

1. Annotate one thread or dialogue at a time.
2. Read through all the messages in the thread, or the entire dialogue one first time.
 - 2a Enron: Then read each email, and break up the sentences into groups which correspond to similar dialogue acts. We call these groups of sentences **DFU groups**. You may need to break up a sentence.
 - 2b Loqui: Number each sentence (or sentence fragment, if you have broken one up) by *m.n.p*, where *m* is the message number; *n* is the sentence (or sentence fragment) number; and *p* indicates overlaps.
3. After each group of sentences within the DFU group, assign the DA type and paraphrase its content.
4. Then write down whether there is a backward link and to what, or whether a forward link is created necessarily (by these DAs: [Request-Action] and [Request-Information]).
5. If you create a blink to something which had no flink, you need to add an sflink (secondary forward link). If you want to create a blink to what is only

a part of a previous DFU group, you need to break up that DFU group into 2 or more parts. Be sure also to fill in the DA for each new DFU group (the DAs should all be the same), paraphrase the content of the utterance, and create new flinks if needed.

6 FAQ: Special Cases

This section contains questions frequently asked by annotators while annotating the Loqui Corpus. When in doubt, refer to this section while annotating for consistency.

6.1 Thank you

- When a caller gives a strange response “Thank you” to the librarian’s request for her to hold on, how should it be labeled? Should it be an [Inform] or [Conventional: thank you]?

In this case, it should be [Conventional: thank you].

- When a librarian says “yeah” in response to the caller’s “thank you very much,” should it be called [Conventional]?

If it appears that the librarian means “you’re welcome” by saying “yeah,” then it should be [Conventional].

- When someone says, “Thank you,” in response to something, can there be a Sflink after the previous statement and a Blink after the [Conventional: thank you]?

There are two options. If “thank you” is uttered as a direct response to something, then there should be a sflink-blink pair as in the following case:

Example:

```
31.3.0 librarian#1 I just ordered these 5 books
you requested
[Inform: order is complete]
Sflink31.3.0
32.1.0 thank you
[Conventional: caller thanks librarian]
Blink31.3.0
```

However, if the prosody and the situation of “thank you” suggests that it is being used more generally, like at the end of a dialogue (which is often the case with these dialogues), then there shouldn’t be an sflink-blink pair.

Example:

```
63.1.0 librarian#1 yes I checked everything to
make sure
[Inform: librarian assures that the order is
complete]
64.1.0 caller#1 uh thank you ever so much
[Conventional: thanks]
65.1.0 librarian#1 you’re very welcome
[Conventional: you’re welcome]
```

6.2 Oh

- When a caller says “oh” with an intonation that suggests she is disappointed by the news that the book she wants does not have a number, is this considered [Backchannel] or [Inform] with a Blink that connects to the previous statement?

If the intonation of “oh” indicates apparent disappointment, then it should be considered as [Inform].

6.3 Other Expressions

- Is “Andrew Heiskell Library may I help you” a [Conventional] greeting, an [Inform], or a [Request-Information]?

Since the purpose of this conventional greeting is to ask what the caller would like to achieve during the phone call, it should be a [Request-Information].

- How should “I will be right back” be labeled?

The expression “I will be right back” is a common phrase denoting the librarian’s brief absence, usually to handle another call, and subsequent return. Therefore, it should be considered as [Conventional].

6.4 NoDA

- What should be done when someone tries to say something that is unintelligible? Should it be considered as a [NoDA]?

If the utterance doesn't seem to be relevant to the conversation, then it should be a [NoDA]; however, in the case that the other person understands what was said and responds to it, even if the annotators cannot figure out what is said, then it could be labeled as [Inform: (not clear)].

- What is the difference between [NoDA] and <NU>?

[NoDA] is a label assigned to a DFU as part of DFU annotation, while <NU> is a tag used during the transcription process, so part of the main difference is that they are different levels of representation. <NU> is non-understanding by the transcriber. [NoDA] is used for other cases besides <NU>.

7 Example: Enron Thread

```
-----  
<thread_id>127941</thread_id>  
<depth>0</depth>  
<type>ThreadNode</type>  
<message_id>763333</message_id>  
<parent_id></parent_id>  
<subject>City of Glendale</subject>  
<date_time>2001-10-05 14:59:07</date_time>
```

M1.1 Sara,

[Conventional: salutation]

M1.2 Believe it or not, we are very close getting our signed ISDA from the City of Glendale.

[Inform: sender et al. are getting close to getting a signed ISDA from the City of Glendale]

M1.3 Steve Lins, the City attorney had a couple of questions which I will attempt to relay without having a copy of the documents.

[Inform: Steve Lins, the City attorney, had some questions, which sender is attempting to relay]

M1.4 1) I am assuming that he obtained a for legal opinion letter or document of some sort.

M1.5 This document references a confirmation and we are not sure what this references.

M1.6 Typically, it references a transaction, which in this case, there are no transactions yet.

M1.7 He feels this reference should be deleted.

[Inform: Steve Lins thinks an unclear reference should be deleted from a document]

M1.8. What is your opinion regarding this?

[Request-Information: recipient(s)' opinion on this]

Flink1.8

M1.9. 2) We sent him a couple of form documents to facilitate the documents required under the ISDA.

M1.10 One form was a form resolution.

M1.11 They have already received City Council approval to enter into financial transactions and to enter into an ISDA with us.

M1.12 Steve is going to get a certified copy of this Resolution.

[Inform: sender et al. sent Steve Lins some form documents to facilitate documents required under the ISDA, including a form resolution, of which Steve is going to get a certified copy, since they already have City Council approval]

M1.13 Will this suffice?

[Request-Information: is this good enough]

Flink1.13

M1.14 When you return, I may try to do one last conference call to alleviate any unanswered questions.

[Inform: when Sara returns, sender may attempt one more conference call to resolve his/her unanswered questions]

M1.15 I think we will have an executed ISDA with the City of Glendale by the end of next week.

M1.16 I am going to be out there meeting with them on Wednesday.

[Inform: sender thinks they will get an executed ISDA with Glendale by the end of next week, and sender will be there to meet with officials on Wednesday]

M1.17. Thanks for your help,
[Conventional: thanks]

<thread_id>127941</thread_id>
<depth>1</depth>
<type>ThreadNode</type>
<message_id>874438</message_id>
<parent_id>763333</parent_id>
<subject>City of Glendale</subject>
<date_time>2001-10-08 09:02:56</date_time>

M2.1 Kim:
[Conventional: salutation]

M2.2 Can you obtain the name of Glendale's bond counsel
(lawyer's name, phone number, email, etc.)?
[Request-Information: name, number, and email of Glendale's
bond counsel]
Flink2.2

M2.3 Thanks.
[Conventional: thanks]

M2.4 SS
[Conventional: signature]

<thread_id>127941</thread_id>
<depth>2</depth>
<type>ThreadNode</type>
<message_id>763334</message_id>
<parent_id>874438</parent_id>
<subject>City of Glendale</subject>
<date_time>2001-10-08 09:26:50</date_time>

M3.1 Glendale's City Attorney is Steve Lins.
M3.2 His phone number is 818-548-2080 and his email is

slins@ci.glendale.ca.us.

[Inform: name, number, and email of Glendale's City Attorney]

Blink2.2

Sfblink3.2

M3.3 Please let me know if you need anything else.

[Inform: Sara should let sender know if she needs anything else]

M3.4 I will be in their offices on Wednesday.

[Inform: sender will be in Glendale's offices on Wednesday]

<thread_id>127941</thread_id>
<depth>2</depth>
<type>ThreadNode</type>
<message_id>874028</message_id>
<parent_id>874438</parent_id>
<subject>City of Glendale</subject>
<date_time>2001-10-08 10:15:27</date_time>

M4.1. Sara:

[Conventional: salutation]

M4.2 I do not see a copy of an opinion in the file nor have we received one since I sent the execution copies of the ISDA to Steve Lins.

[Inform: sender doesn't see a copy of an opinion in file and has not received one since sending execution copies of ISDA to Steve Lins]

<thread_id>127941</thread_id>
<depth>2</depth>
<type>ThreadNode</type>
<message_id>763337</message_id>
<parent_id>874438</parent_id>
<subject>City of Glendale</subject>
<date_time>2001-10-08 16:18:22</date_time>

M5.1 Steve,
[Conventional: salutation]

M5.2 could you provide the name, phone number, etc. of your bond council for our attorney, Sara Shackleton?
[Request-Information: send name and contact information of bond counsel to Sara]

Blink2.2
Flink5.2

M5.3 Thanks,
[Conventional: thanks]

<thread_id>127941</thread_id>
<depth>3</depth>
<type>ThreadNode</type>
<message_id>1117626</message_id>
<parent_id>763334</parent_id>
<subject>City of Glendale</subject>
<date_time>2001-10-08 09:27:29</date_time>

M6.1 I need the city's bond counsel (outside counsel).
[Inform: Sara needs city's bond counsel]
Blink3.2
Sflink6.1

<thread_id>127941</thread_id>
<depth>4</depth>
<type>ThreadNode</type>
<message_id>763335</message_id>
<parent_id>1117626</parent_id>
<subject>City of Glendale</subject>
<date_time>2001-10-08 10:03:53</date_time>

M7.1 Is this to obtain outside opinion?
[Request-Information: is this to get outside opinion]

Blink6.1
Flink7.1

M7.2 I thought we were going to do that at our own expense.
[Inform: sender thought this was to be at sender et al.'s own expense]
Sflink7.2

<thread_id>127941</thread_id>
<depth>5</depth>
<type>ThreadNode</type>
<message_id>763443</message_id>
<parent_id>763335</parent_id>
<subject>City of Glendale</subject>
<date_time>2001-10-08 10:38:46</date_time>

M8.1 We are going to do this at our own expense.
[Inform: this will be at Sara's and others' own expense]
Blink7.2

M8.2 But we would like to hire Glendale's bond counsel.
[Inform: Sara et al. would like to hire Glendale's bond counsel]

M8.3. I don't know the name of Glendale's bond counsel or how to
get in touch with them.
[Inform: Sara doesn't know bond counsel's name or contact
information]
Sflink8.3

<thread_id>127941</thread_id>
<depth>6</depth>
<type>ThreadNode</type>
<message_id>763336</message_id>
<parent_id>763443</parent_id>
<subject>City of Glendale</subject>
<date_time>2001-10-08 11:43:20</date_time>

M9.1. I will work on this for you - and will be in touch.
 [Inform: sender will find out information about bond counsel
 for Sara]
 Blink8.3

M9.2. Thanks!
 [Conventional: thanks]

8 Example: Loqui Dialogue 45

Line	Type of Request	Successful
6.2.0	Auth	n
20.1.0	Auth	y
22.2.0	Title	y
24.1.0	Title	n
35.2.0	Auth/Other	n/g
40.1.1	Title	n

1.1.0 librarian#1 <P> <BN> good morning this is the Andrew Heiskell
 Library
 [Conventional: greetings]
 2.1.1 caller#2 [os hi this eo] is <FIRSTNAME> <LASTNAME>
 [Inform: caller says her first and last names]
 2.1.2 librarian#1 [os how- eo]
 3.1.0 librarian#1 <P> I'm sorry
 [Request-Information: repeat previous statement, which wasn't heard]
 Flink3.1.0
 4.1.0 caller#2 this is <FIRSTNAME> <LASTNAME>
 [Inform: caller repeats her first and last names]
 Blink3.1.0
 5.1.0 librarian#1 yes
 5.2.0 librarian#1 may I help you
 [Request-Information: may librarian help caller]
 Flink5.2.0
 6.1.0 caller#2 um

6.2.0 caller#2 I would like two books by Bertrice Small
[Inform: caller would like 2 books by Bertrice Small]
Blink5.2.0
7.1.0 librarian#1 okay
7.2.0 librarian#1 before I start
7.3.0 librarian#1 um the library is working with research team
7.4.0 librarian#1 to better understand the types of phone requests
we get from our patrons
[Inform: librarian explains about research that is being done on phone
requests]
8.1.0 caller#2 uh huh
[Backchannel]
9.1.0 librarian#1 uh is <P> would it be permissible for us to record
this conversation
[Request-Information: permission to record conversation]
Flink9.1.0
10.1.0 caller#2 <P> sure
[Accept: permission to record given]
Blink9.1.0
11.1.0 librarian#1 okay
12.1.1 librarian#1 [os thank you eo]
[Conventional: thanks]
12.1.2 caller#2 [os mhm eo]
[Conventional: welcome]
13.1.0 librarian#1 so y- you said your name is <FIRSTNAME> <LASTNAME>
[Request-Information: confirmation of caller's name]
Flink13.1.0
14.1.0 caller#2 mmhm
[Affirmative: confirmation given]
Blink13.1.0
15.1.0 librarian#1 okay let me look that up
[Inform: librarian is going to look up caller]
16.1.1 caller#2 [os eo]
[NoDA]
16.1.2 librarian#1 [os it's eo] your record
[Inform: librarian has found caller's record]
17.1.0 caller#2 <CGH> <CGH> excuse
[NoDA]
18.1.0 non-speaking-librarian-activity#1 <TP> <BN> <P>
[NoDA]

19.1.0 librarian#1 okay
 19.2.0 librarian#1 how may I help you
 [Request-Information: how many librarian help caller]
 Flink19.2.0
 20.1.0 caller#2 um the two books I want are by Bertrice Small
 [Inform: caller wants 2 books by Bertrice Small]
 Blink19.2.0
 21.1.0 librarian#1 mmhm
 [Backchannel]
 22.1.0 caller#2 and the first one is called
 22.2.0 caller#2 um Ros- Rosamund
 [Inform: caller gives title of the first request, 'Rosamund']
 23.1.0 librarian#1 <P> right
 [Backchannel]
 24.1.0 caller#2 <P> <BN> and the second one is called Until You
 [Inform: caller gives title of the second request, 'Until You']
 25.1.0 librarian#1 <P> what is it called
 [Request-Information: repeat title, which wasn't heard]
 Flink25.1.0
 26.1.0 caller#2 Until <P> You
 [Inform: caller repeats title, 'Until You']
 Blink25.1.0
 Sflink26.1.0
 27.1.0 librarian#1 <P> <ST> okay let me look for that </ST>
 [Inform: librarian is going to look for these 2 books]
 Blink26.1.0
 28.1.0 non-speaking-librarian-activity#1 <BN> <P> <TP>
 [NoDA]
 29.1.0 caller#2 <CT>
 [NoDA]
 30.1.0 non-speaking-librarian-activity#1 <TP> <P> <BN>
 [NoDA]
 31.1.0 librarian#1 okay
 [Backchannel]
 32.1.0 non-speaking-librarian-activity#1 <TP> <P>
 [NoDA]
 33.1.0 librarian#1 okay I've ordered them <P>
 34.1.1 librarian#1 [os up eo] for you
 [Inform: librarian has ordered these 2 books for caller]
 34.1.2 caller#2 [os okay eo]

[Backchannel]

35.1.0 caller#2 <P> uh

35.2.0 caller#2 also could you tell me the last book you have by Terry Goodkind

[Request-Information: what is the most recent book library has by Terry Goodkind]

Flink35.2.0

36.1.0 non-speaking-librarian-activity#1 <TP> <P> <BN>

[NoDA]

37.1.0 librarian#1 <ST> let me see here </ST> <TP>

[NoDA]

38.1.1 caller#2 um [os uh <P> yes eo]

[Inform-Start]

38.1.2 librarian#1 [os Terry Goodkind eo]

[Backchannel: grounding, librarian repeats author's name]

39.1.0 caller#2 it's <P>

40.1.1 caller#2 the Sword of <P> [os Truth seri- eo]

[Inform-Finish: (38.1.1, 40.1.1) caller is looking for 'The Sword of Truth' series]

40.1.2 librarian#1 [os uhm eo]

41.1.0 librarian#1 you're looking for the last

41.2.0 librarian#1 the mo- the most recently published

[Request-Information: is caller looking for the most recently published book by Terry Goodkind]

Flink41.2.0

42.1.0 caller#2 uh huh

[Affirmative: yes, caller is looking for most recent book]

Blink41.2.0

Sfblink42.1.0

43.1.0 librarian#1 I have two thousand five

43.2.0 librarian#1 <P> Chainfire

[Inform: most recent book is 'Chainfire' from 2005]

Blink42.1.0

Sfblink43.2.0

44.1.0 caller#2 ah okay I have that already

[Inform: caller has 'Chainfire' already]

Blink43.2.0

45.1.1 librarian#1 you have that [os now eo]

[Request-Information: does caller have 'Chainfire' out now]

Flink45.1.1

45.1.2 caller#2 [os mmhm eo]
[Affirmative: yes, caller has 'Chainfire' out now]
Blink45.1.1
46.1.0 librarian#1 <P> uhmm
46.2.0 librarian#1 you've had all of them that I have listed here
[Inform: caller has taken out every book by Goodkind that librarian
sees listed]
Sfblink46.2.0
47.1.0 caller#2 yeah
[Affirmative: caller confirms that what librarian has said is true]
Blink46.2.0
48.1.0 librarian#1 yeah
49.1.1 librarian#1 [os okay eo]
[Backchannel]
49.1.2 librarian#1 [os mhm eo]
[Backchannel]
50.1.0 caller#2 okay that's it
[Inform: caller has no more requests]
50.2.0 caller#2 thank you
[Conventional: thanks]
51.1.0 librarian#1 you're welcome
[Conventional: welcome]
52.1.0 caller#2 bye bye
[Conventional: goodbyes]
53.1.0 librarian#1 bye now
[Conventional: goodbyes]
54.1.0 non-speaking-librarian-activity#1 <TN> <P>
[NoDA]

9 Appendix: Orthographic Transcription Tagent

- : breathing noise
- <BN>: background noise
- <BSTN>: background caller
- <CHKL>: chuckle
- <CGH>: cough

- <CT>: clear throat
- <G>: garbled (completely unintelligible, not clear if speaker articulated any words)
- <IR>: incoming call ring
- <NS>: not sure (for use by person doing the transcription to mark spots to return to and review again)
- <NU>: non-understanding (speaker probably said something specific, but recording is not clear enough, or speaker spoke too quickly or softly)
- <P>: longer pause
- <ST>: self-talk (similar to NU, but speaker was clearly speaking to his or herself)
- <TN>: telephone noise, e.g., click, static or other
- <TP>: typing noise, when librarian can be heard working at keyboard during call
- <VB>: voice in background

References

- [1] John L. Austin. *How to do things with Words: The William James Lectures delivered at Harvard University in 1955*. Clarendon, Oxford, 1962. Edited by J. O. Urmson.
- [2] Harvey Sacks, Emanuel A. Schegloff, and Gail Jefferson. A simplest systematics for the organization of turn-taking for conversation. *Language*, 50:696–735, 1974.
- [3] John R. Searle. *Speech Acts: An Essay in the Philosophy of Language*. Cambridge University Press, 1969.