

May 01, 2011

Internet discourse: the application of discourse analysis to instant messaging communication

Eric Ketcham
Northeastern University

Recommended Citation

Ketcham, Eric, "Internet discourse: the application of discourse analysis to instant messaging communication" (2011). *Honors Junior/Senior Projects*. Paper 69. <http://hdl.handle.net/2047/d20002587>

This work is available open access, hosted by Northeastern University.

Internet Discourse: The application of discourse
analysis to instant messaging communication

Honors Thesis

Eric Ketcham, student

Heather Littlefield, Ph.D., advisor

Linguistics Program

Northeastern University

Fall 2010 – Spring 2011

*We wish to thank the Honors Office for the opportunity to conduct this research, as well as for an Early Research Grant. We also wish to thank the Provost Office for a Spring 2011 Undergraduate Research Grant. In addition, we wish to thank Jaclyn Karvelas for her work formatting and coding data, as well as Allison Madden for her work coding the data. Eric Ketcham wishes to especially thank Heather Littlefield for her help, guidance, and work all year long. I would not have been able to complete this project without her support and patience.

**This research was approved by the Northeastern University Institutional Review Board under IRB# 10-10-03.

1. ABSTRACT

Internet Discourse (ID) is commonly regarded as a hybrid between Spoken and Written Discourse (SD and WD). This model fails to take into account unique features of ID that cannot be explained by influence from either SD or WD. The present study paired participants to have online conversations on an instant messaging program. The conversations were coded for several features. The expression of emotion, the representation of the physical environment, abbreviations, punctuation and synchronicity were examined among other features. Internet Discourse was found to have many features in common with both Spoken and Written Discourse, but was also found to have enough unique features to be considered its own independent form of discourse. As a result, this paper proposes a triangular continuum model of influence between Internet, Spoken, and Written Discourses as the best conception of the three forms of discourse.

2. INTRODUCTION AND LITERATURE REVIEW

Sociolinguistic research has placed Internet Discourse (ID) at a midpoint on a continuum between Spoken and Written Discourses. While this accurately captures strong influences from both spoken and written forms of discourse, it fails to take into account the unique features of Internet Discourse. Instead of analyzing ID as a cross between Spoken Discourse (SD) and Written Discourse (WD), ID should be placed at its own corner in a triangular continuum. In this way, a three way dynamic of influences is captured, showing that while each form of discourse has its own characteristics, communication can draw from all three forms. SD and WD influence each other, and this research seeks to show that SD and WD influence ID, while ID has its own set of features. While it has not been shown in research, the influence of ID on SD and WD would further elucidate the triangular dynamic among them.

2.1 Spoken Discourse

Spoken Discourse is characterized by a number of features. In SD, parties must be present in the same time and space. Of course, there is the case of a phone conversation or a voicemail, however these do not constitute idealized Spoken Discourse, but rather are missing certain paralinguistic cues associated with Spoken Discourse such as gesture and facial expression. SD is enhanced by and can be dependent upon such paralinguistic information. Certainly the information conveyed when an interlocutor smiles and exclaims, "Great!" with rising intonation is different from when an interlocutor rolls their eyes and says, "Great!" with falling intonation.

Laughter, a paralinguistic cue, is ubiquitous in SD. Provine (1993) examined recordings of anonymous conversations in public places and found that laughter occurred during natural pauses, at the ends of phrases and sentences. Provine called this the 'punctuation effect', because laughter occurred where punctuation would be present in a written representation of the conversation.

Turn taking is another feature of SD. The fact that turn taking occurs at all requires that there be a synchronous conversation taking place. Because interlocutors are present with each other in the moment of communication, repairs can be made immediately. An interlocutor can repeat a mispronounced word, or a listener can ask for

clarification on an ambiguous or confusing statement or question (for a review on repair, see Sacks, Schegloff, & Jefferson, 1974; Schegloff, Jefferson, & Sacks, 1977).

Sacks, Schegloff, and Jefferson (1974), outline a number of turn taking principles of SD. The most salient to the present research are that (1) overwhelmingly, one party speaks at a time, (2) transitions between speakers with little or no gap make up the majority of transitions, and (3) talk can be continuous or discontinuous.

Dyadic or triadic exchange structures are common. Dyadic structures include an adjacency pair exchange of greetings or farewells, or a questions and answer. A triadic structure includes feedback, as in a teacher's communication with a pupil; the teacher first asks a question, the pupil responds, and finally the teacher either agrees or disagrees with the response (Sinclair and Coulthard, 1975). Feedback is an important part of SD. While feedback can take the form of laughter, nodding, or words like 'uh huh' or 'yeah', they give important information to the interlocutor. Schegloff (1981) posits that such feedback serves two functions. First, responses like 'uh huh' can be interpreted as a request for more information. With rising intonation, 'uh huh' can take the place of question words like 'Who?' or 'What?' denoting interest. Secondly, 'uh huh' can be used to pass on repairs. An interlocutor may pause and wait for confirmation that the listener is not confused. When a listener says, 'uh huh' it is as if to say, 'I understand,' thus passing on repairs.

2.2 Written Discourse

Written Discourse, in its idealized form, is an asynchronous form of communication. The writer is removed in both time and space from the reader. While situations such as passing notes may be in written form, such situations take on features of SD, thus falling somewhere in the continuum between WD and SD. The exploitation of its visual nature is a feature of WD. Font and color can be used to change the general feeling of the writing. A writer also has the ability to edit their work as much as necessary, unlike a speaker who is obliged to continually produce speech until their idea is complete. However, it is important to note that a writer has no chance for immediate repairs and must accurately judge the prior knowledge of the reader to successfully communicate, while a speaker can easily add more information or clarify something they have said if the listener does not understand.

Brown and Yule (1983) contrast Spoken and Written Discourses very well through synthesizing the research of Labov (1972), Sinclair and Coulthard (1975), Chafe (1979), Ochs (1979), Cicourel (1981), and Goffman (1981). They state that the syntax of WD is significantly more structured than that of SD. SD contains many incomplete sentences and is often just a series of phrases, unlike WD comprised of complete and grammatical sentences. While WD may contain a great deal of relative clauses and subordination, SD contains very little. Complementizers (*that*), temporal markers (*when/while*), and logical connectors (*despite, since, besides, however, etc.*) are common in organizing the more elaborately syntactically structured sentences of WD. SD relies on a much smaller set of typical organizers, such as *and, but, then, and if*. SD is usually less explicit than WD, removing organizational indicators such as *because* (e.g. 'I'm hungry (because) I haven't eaten yet today'). WD also makes use of rhetorical organizers (*first, more important than, in conclusion, etc.*) seldom used in SD. Another indication that SD is less syntactically complicated than WD is that passive construction is rare in

SD. In addition, SD is often organized by placing the most important part of an idea first, regardless of whether it falls in the subject or predicate, unlike WD; Givón's (1979) topic-comment structure in SD contrasts with WD's subject-predicate form (ex. 'the cats + did you let them out').

While a number of modifiers can be present in noun phrases in WD, SD tends to have no more than one modifier per noun phrase. Brown and Yule (1983) give the example, 'old man McArthur + he was a wee chap + oh very small + and eh a beard + and he was pretty stooped'. In this way, SD is more spread out while WD is often more densely packed with information. Also, similar to repair, an interlocutor may refine what they say as they speak. Brown and Yule (1983) give the example, 'this man + this chap she was going out with'. WD allows for such editing that the refining process is not evident in the end result. SD is typified by vague vocabulary such as *a lot of, got, do, thing, nice, stuff, place, and things like that*. Informal words and phrases are common in SD including *well, um, I think, you know, of course, and so on, etc.*

Of course, a significant amount of communication occurs outside the realm of the idealized informal conversation of SD and the formal academic writing or letter writing of WD. As mentioned above, voice messages lack the feedback of a listener. Notes passed back and forth may take a more informal nature than WD. An oral presentation usually contains more formal sentence structure than SD. These examples illustrate that discourse is on a continuum. Even in an informal conversation, a speaker that spends a significant amount of time reading may incorporate elements of WD in their speech, while someone who rarely reads may use informal elements of SD in their writing. Certainly, a child while learning to write may use incomplete sentences, or may spell words phonetically, incorporating features of SD in their writing.

2.3 Internet Discourse

Internet Discourse is certainly influenced by both Spoken and Written Discourses. Influence from WD can most obviously be seen in the visual context of ID. Internet Discourse is a written form of communication. Also, the interlocutors are physically, and depending on the type of ID, temporally separated, as in WD. Asynchronous forms of ID include e-mail, list-serves, and wall posts. Synchronous forms include chat rooms (internet relay chats) and, the focus of this study, instant messaging. Hentchel (1998) examined a number of internet relay chats and found that capital letters were used to denote yelling or usage of a raised voice, a technique used in WD to provide the same kind of emphasis. Ferrara, Brunner and Whittemore (1991) also investigated ID, but through instant messaging. They had subjects chat with a research assistant over an instant messenger with the object of making travel plans. They found several examples of cataphora, or forward reference, in their instant messaging texts. For example, they found phrases such as, 'the following criteria' and, 'the following two airlines', in their conversation logs. Cataphora is a device used in written discourse primarily, and relies on the non-linear ability to reference something before communicating specifically what it is.

Several studies have found influence of SD on ID. Ferrara, Brunner, and Whittemore (1991) found that conversations typically had a dyadic exchange structure, as in SD. In addition, they found significant usage of informal discourse particles typically used in informal speech such as *okay, sure, sorry* and *now*. Al-Sa'di and Hamdan (2005),

including 'lol' mentioned above, 'rofl' for 'rolling on the floor laughing', 'brb' for 'be right back', and 'g2g' for 'got to go'.

Emoticons also can serve functions other than simply recreating facial expressions. They can be used to exert illocutionary force on the statements they accompany. Dresner and Herring (2010) give the example of a person posting about a recent flare-up on fibromyalgia on a Yahoo! support forum. He ended his message with a smiley face emoticon, clearly not indicating that he was happy with his condition, but rather as a way to soften the sadness or negativity of his statements. According to Dresner and Herring, emoticons are used to demarcate a joke or to soften commands. They equate emoticons used in this way as comparable to gesture or facial expression that change the meaning of a phrase in SD, or to punctuation such as question marks and exclamation marks change the meaning of a phrase in WD. Emoticons can also convey socio-emotional information. Fullwood and Martino (2007) examined the effects of emoticons on perception of personality. Subjects asked prompted questions through an instant messenger and received pre-determined answers, either containing emoticons or not. After completing the 'conversation', the subjects were asked to rate their conversation partner on their extraversion, agreeableness, conscientiousness, emotional stability, and openness to experience. Subjects who received responses including emoticons rated their partners as being more extraverted and agreeable than those who did not receive responses with emoticons.

Turn taking principles are also significantly altered in ID, as compared to SD. An interlocutor can hold the floor by entering small chunks into a conversation in an internet relay chat or instant messaging conversation. Hentschel (1998) found that often these chunks were incomplete sentences or phrases, helping to indicate that the interlocutor had not finished their turn. Also, turns do not need to be taken in a sequential manner. Berglund (2009) examined synchronous instant messaging conversations between Swedish design students and found that while turns were typically sequential, disrupted turn adjacency did not negatively impact cohesion or comprehension of the conversation for either interlocutor.

These turn taking principles take advantage of the written form of the conversation, allowing for non-linear flow and incomplete text entry. Also maximizing the written form, Werry (1996) found that multiple conversations took place simultaneously in internet relay chat, leading to rapid topic changes. In addition, while instant messaging and internet relay chats are typically synchronous, they can be used asynchronously, or an interlocutor can excuse himself from a conversation and come back at whim. Baron (2004) examined instant messaging conversation and was surprised by a low number of turns per minute, suggesting that interlocutors were not directing their attention solely to the conversation, or that they were leaving the conversation for short periods of time. She also found anecdotal evidence that subjects were multitasking while participating in the conversations. In this way, an interlocutor can enter a turn and come back to the conversation later, picking up where the conversation left off.

2.4 Objectives of the Present Study

As can be seen, while some characteristics of ID can be viewed as recreating the spoken aspects of conversation, ID has a number of unique features. Ferrara, Brunner and Whittemore (1991) use the term 'interactive written discourse' to denote ID.

Interactive written discourse, while it does capture some of the aspects of ID, refers too specifically to WD. While they, and many other researchers seek to place ID on a continuum between SD and WD, this does not acknowledge the features of ID that are not reflected in SD or WD. This research seeks to build upon previous research by examining the above features specifically through the lens of Internet Discourse as its own corner in a triangular continuum of SD, WD and ID. Ferrara, Brunner, and Whittemore (1991) cite the fact that some participants used more formal language and others more informal and abbreviate language in their communication as evidence that interactive written discourse was an emerging register. Different people using the form in different ways meant that convention had not yet been set. However, in a triangular continuum model, this discrepancy can be understood as some interlocutors being influenced more heavily by SD and others by WD in their use of ID. Figures 1 and 2 below represent this shift in conception of Internet Discourse.

The present study will examine the use of punctuation and the synchronous form of instant messaging conversations. Baron’s (2004) suggestion that online interlocutors may be simultaneously engaging in other behaviors that negatively affect attention paid to the online conversation will be investigated. The researchers will search for evidence of multitasking, as well as closely study synchronous and asynchronous usage of instant messaging. This research will also seek to replicate the findings of the above research, particularly the research on internet relay chats (Farias, 2008; Hentchel 1998; and Werry, 1996) and on online message board postings (Provine et al., 2007), to confirm that findings from research on other online media are also applicable to instant messaging.



Figure 1. (Above) The currently accepted model places Internet Discourse at a midpoint in a continuum between Spoken and Written Discourse.

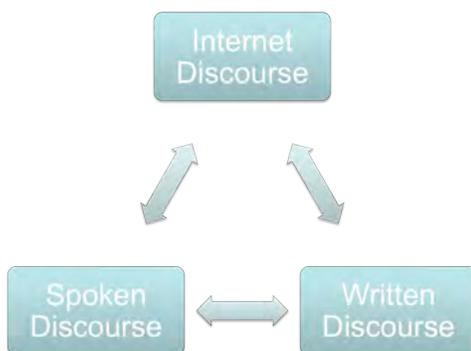


Figure 2. (Left) Our research seeks to establish a triangular influence model with Internet, Spoken, and Written Discourse as distinct entities.

3. METHODS

3.1 Participants

Twenty-six Northeastern University students participated in the study. They ranged in age from eighteen to twenty-six years of age, with a mean age of 20.5. The study was advertised first in linguistics classes at Northeastern University and through an email to all linguistics students. Secondly, the study was advertised in the residence halls, drawing on a much larger and academically diverse student population. Six participants were male and twenty were female. Seven conversation pairs were female-female, and six pairs were male-female. There were no male-male pairs. Three pairs of participants signed up together already knowing each other, while ten pairs did not know each other before the beginning of the study.

3.2 Procedure

Participants were each given a username and password for AIM (AOL Instant Messenger). Participants were paired into conversation dyads, forming a total of thirteen dyads. Each dyad had four five-minute conversations, for a total of 52 conversations. Ultimately 54 conversations were collected – one group submitted only one conversation while a few groups submitted more than four. Participants had their conversations on their own computers wherever they had access to the Internet. Participants saved their conversations locally on their own computers, and at the completion of the fourth conversation, each participant submitted their conversations to the researchers via email. Participants were free to discuss any topic they wanted, though some conversation topics were provided to help dyads who were not familiar with each other start their conversations. These topics included current events such as the March 11, 2011 earthquake in Japan and the 2011 revolutions across the Middle East, courses the participants were taking and student groups the participants were involved in, and the Bean Pot (a hockey tournament that Northeastern participates in, which happened in February 2011), among other topics that were likely to have common interest for the participants.

3.3 Data Coding

Submitted conversations were coded for a number of features using the CLAN program (MacWhinney, 1993). The features were chosen to pinpoint similarities and differences between Internet Discourse and both Spoken and Written Discourses. Most examples in this section are hypothetical and did not come from the study conversations.

3.3a *Features Coded: Spoken Discourse*

The features closely aligned with Spoken Discourse were backchannel cues, requesting clarification, use of colloquialisms, use of contractions, use of vague and informal language, laughter at punctuation points, use of active morphemes to make new words or changing a word's part of speech, other and self-initiated repair, repetitive and

simple syntactic structures, as well as the use of meaningful sounds that are not words (ex. ‘aw’). Descriptions of each of these, with examples, follows.¹

3.3a.i Laughter (LAUGH)

Laughter was considered any expression of laughter including ‘hahaha’, ‘lol’ (‘laugh out loud’), or any other form of laughter.

Ex. ‘hahaha’ was coded ‘LAUGH|hahaha’

3.3a.ii Vague Language and Informal Words (INF)

Vague language was considered any non-specific term such as ‘stuff’, ‘a lot’, and ‘nice’. Informal words and phrases were words that would be considered too informal to use in a formal essay or letter such as ‘okay’, ‘sorry’, ‘sure’.

Ex. ‘He ate a lot’ was coded ‘He ate INF|a lot’

3.3a.iii Colloquialisms (COLLOQ)

Colloquialisms were considered informal phrases that may be regional, such as slang. These include ‘wicked’, ‘cool’, ‘my bad’ to name a few.

Ex. ‘my bad’ was coded ‘COLLOQ|my bad’

3.3a.iv Contractions (CONT)

Any contraction was marked with this code, whether or not an apostrophe was present. For example both ‘she’s’ and ‘shes’ were considered contractions.

Ex. ‘you’ve’ was coded ‘CONT|you've’

3.3a.v Meaningful, Non-word Sounds (SOUND)

These were speech sounds that carried meaning, but were not words. ‘Oh’, ‘aw’, and ‘eh’ were common examples of these.

Ex. ‘oh yeah’ was coded ‘SOUND|oh yeah’

3.3a.vi Backchannel Cues (BCCUE)

The code for backchannel cues was applied to any response that did not hold meaning other than to communicate, ‘I understand,’ or ‘keep going.’ In spoken conversation this occurs through nodding one’s head, saying ‘mmhmm’, or ‘okay’. Note that not every instance of ‘okay’ or ‘mhm’ was taken to be a back-channel cue; it was essential to look at what the person was trying to communicate: were they merely noting that they were listening, or were they trying to convey agreement or the fact that they were thinking about the topic? If it seemed to be anything more than just listening, then it was not coded as a backchannel cue.

¹ Note that in the examples, only the feature in question is marked for. In the coding of the data itself, all relevant features were, of course, marked.

Ex. 'okay' was coded 'BCCUE|okay'

3.3a.vii Self-initiated Repair (S-REPAIR)

Self-initiated repair was when one interlocutor clarified his own text without prompting from his conversation partner. This was used most often to correct a typo or misspelling.

Ex. A: peple
A: *people

In the above example, '*people' was coded 'S-REPAIR|*people'

3.3a.viii Other-initiated Repair (O-REPAIR)

Other-initiated repair was when one interlocutor clarified or corrected her own text when prompted to do so by her conversation partner. This was used to mark for clarification of a statement or correction of a typo or misspelling.

Ex. A: 'I was really nsd'
B: 'what were you?'
A: 'mad*, sorry'

In the above example, 'mad*' was coded 'O-REPAIR|mad*, sorry'

Ex. A: 'He kissed my best friend'
B 'Wait, who kissed your best friend?'
A: 'Dave'

In the above example, 'Dave' was coded 'O-REPAIR|Dave'

3.3a.ix Request for Clarification (CLARIF)

A request for clarification consisted of one interlocutor asking the other to elaborate or correct their statement. If one participant asks 'Who?', or 'What did he do?', it may be a request for clarification. Not every instance of 'Who?', however, was considered a request for clarification. The requesting interlocutor had to be asking for his partner to repair a statement, rather than requesting new information.

Ex. 'Who?' was coded 'CLARIF|Who?'

3.3a.x New Word Formation (NEWWORD)

New word formation consists of creating a word that is not considered already in existence by standard judgment. Usage of a word as a non-standard part of speech (e.g. using 'girl' as a verb), or changing the part of speech of a word using active content morphemes (e.g. 'math-y') to form a non-standard word were both considered new word formation.

Ex. 'It was movie-esque' was coded as 'It was NEWWORD|movie-esque'

3.3b *Features Coded: Written Discourse*

The features related to Written Discourse were the use of capital letters for emphasis, the use of complementizers and logical connectors as markers of more formal language, the use of orthographic abbreviations, and the use of cataphora or forward reference. Descriptions of each follow, with examples.

3.3b.i Capital Letters for Emphasis (CAPS)

Capital letters are often used in Written Discourse to emphasize a particular word. If a word was capitalized for emphasis, it was marked with this code.

Ex. 'no WAY' was coded 'no CAPS|WAY'

3.3b.ii Complementizers (COMP)

When an utterance contained a complementizer, the complementizer was marked. 'That' is the most often used complementizer.

The absence of a complementizer was also coded for. While it is not ungrammatical to omit the complementizer in a sentence, it is considered less formal. If a complementizer was missing, the code 'COMP|=0#that' was used to mark its location.

Ex. 'This is the dog that she liked' would be coded 'This is the dog COMP|that she liked'

Ex. 'The car we took was nice' would be coded 'The car COMP|=0#that we took was nice'

3.3b.iii Logical Connectors (CONNECT)

Logical connectors were considered words that connected two ideas in a sentence to each other. A logical connector can denote temporal progression (e.g. 'When' in 'When I went to the store, I ran into Sally,') causality (e.g. 'Because' in 'I missed my train because you were late,') contrast or opposition (e.g. 'Although' in 'Although it is raining, I'll still go outside,') among other relationships.

Ex. 'While I am reading, you go walk the dog,' was coded 'CONNECT|While I am reading, you go walk the dog.'

3.3b.iv Orthographic Abbreviations (OSHORT)

An orthographic abbreviation was considered a shortening of a word using its own letters. This can be done by clipping the end of a word (e.g. 'sec' for 'second'), by removing letters from within the word (e.g. 'sry' for 'sorry').

Ex. 'srly, I'm def going,' was coded 'OSHORT|srly, I'm OSHORT|def going.'

3.3b.v Cataphora (PRO)

Cataphora is forward reference, or using a pronoun to refer to something that has not yet been specified. An example is, ‘the following are their names: Eric and Heather,’ or ‘it was so much fun, six flags was’.

Ex. ‘It won’t be fun, that class’ would be coded as ‘PRO|It won’t be fun, that class’

3.3c *Features Coded: Internet Discourse*

Some features were clearly unique to Internet Discourse such as offsetting expressions or gestures in asterisks, the use of emoticons, and abandonment of convention of capitalization of proper nouns and the first words of sentences. Non-linguistic noises that replicated noises in the environment were also marked for. Another feature unique to ID is phonological shortenings of words such as spelling a word or phrase as it sounds (ex. ‘kinda’) or spelling words with letters or numbers pronounced as the word itself (ex. ‘c’ for ‘see’).

Other features, however, the author will argue are unique to Internet Discourse despite their obvious correlation with either Spoken or Written Discourse. For example, acronyms are common in Written Discourse, however the author expected to find that Internet Discourse makes wider use of them, adapting them beyond the succinct expression of organizations and some common phrases (such as ASAP), but also to express emotions and to convey full thoughts and ideas (such as ‘brb’, short for ‘be right back’). Also closely related to WD was the feature of misspelled words. While typos and misspelling occur in common written language, the speed at which an interlocutor types to their partner on AIM or any other synchronous chat medium is too fast to edit the same as formal written language. A whole book may contain only a handful if any typos, while a short online conversation often contains several. For this reason, the author expected to find a large number of misspellings and typos. In addition, pictures drawn by characters were marked for. Pictures may often be a part of written text for clarification, but are not constrained by a finite set of characters and a linear organization, as in an online conversation. For this reason, the author considered picture usage to be a feature unique to ID. Punctuation, also, was shared with WD, however, the author expected to find that punctuation had different standard usage than in WD, and therefore represents a unique feature to ID. Lastly related to WD, links to websites could be entered. While website addresses can be a part of Written Discourse, the author expected to find that the real time sharing and using of links as part of a conversation would represent a significant departure from the printing of web addresses in a printed text.

Some features unique to ID may seem to be closely related to Spoken Discourse. Filler words, for example, were marked for, along with meaningful non-word speech sounds such as ‘hmmm’ or ‘huh’. At first glance, these may seem to be directly transplanted from Spoken Discourse, but they cannot serve the same function of buying the speaker time or holding the floor as in spoken conversation. These sounds are often typed into utterances costing the interlocutor time while she types and while her conversation partner does not know what she is typing. This difference in expected usage informed the decision to consider filler words and non-word sounds as unique to ID.

Reduplication is related to both Spoken and Written Discourse, and it used in both, however previous research has shown that reduplication is more flexible in ID

allowing for the reduplication of morphemes, phonemes and letters that cannot be reduplicated in speech and would not be reduplicated in writing. For this reason, the author considered reduplication to be a feature unique to ID.

The synchronicity of the conversations was also tracked to examine how interlocutors organize their conversations temporally. Turns were marked as synchronous or asynchronous. Relatedly, any reference to actively engaging in another activity (multitasking) was also marked for.

The above features are listed below with descriptions and examples.

3.3c.i Emoticons² (EMOT)

Emoticons were considered any image of a face used to express emotion. Some examples of common emoticons are the smiley face (';-)') and the surprised face (:O).

Ex. ';-)' was coded 'EMOT|;-)'

3.3c.ii Emotions Offset in Asterisks (AST-E)

It was expected from previous research that some interlocutors would express emotions by sandwiching words that expressed their emotion between asterisks. Some examples are, *grins* and *sigh*.

Ex. '*grins*' was coded 'AST-E|*grins*'

3.3c.iii Gestures Offset in Asterisks (AST-G)

Similarly, the author expected to find gestures expressed by sandwiching words expressing the gesture between asterisks. Some examples are, *hugs* and *kiss*.

Ex. '*hugs*' was coded 'AST-G|*hugs*'

3.3c.iv Pictures³ (PICT)

Physical objects can be represented by a string of characters, similar to how an emoticon is a representation of a face. Some examples include '<3', and '@}-'-,-'---

Ex. 'thanks <3' was coded 'thanks PICT|<3'

3.3c.v Non-linguistic Noises (NOISE)

Non-linguistics sounds that carry no meaning other than being an onomatopoeic representation of an environmental phenomenon were coded as noises. For example, an interlocutor may recreate the sound of a car driving by typing 'vrrroooooommmmm', or may describe the sound of their alarm clock as going 'beep beep beep'.

² It is important to note that emoticon usage was not factored into the punctuation count.

³ Just as emoticons were not coded as punctuation, pictures were also not coded as punctuation.

Ex. ‘The dog was all like ‘woof’ in my face’ was coded ‘The dog was all like NOISE|‘woof’ in my face’

3.3c.vi Misspellings and Typos (MISSPELL)

Misspellings of words and grammatical errors were coded as MISSPELL.

Ex. ‘peple’ was coded ‘MISSPELL|peple’

3.3c.vii Lack of Capitalization (NOCAP)

The author expected to find instances of missing capitalization where it would be appropriate in written text. This could be from failing to capitalize a proper noun (e.g. ‘boston’), failing to capitalize the first word of a sentence (e.g. ‘it was raining’), or for failing to capitalize an acronym that requires capitalization (e.g. ‘neu’ instead of ‘NEU’, the acronym for Northeastern University).

Ex. ‘i really love northeastern’ would be coded ‘NOCAP|i really love NOCAP|northeastern’

3.3c.viii Acronymic Abbreviations (ASHORT)

These was considered any shortening of a word by use of acronym. The acronyms can be acronyms commonly used in speech and in writing such as ‘ASAP’ for ‘as soon as possible’, or ‘FCC’ for ‘The Federal Communications Commission’. They can also be acronyms that have been adopted specifically by Internet Discourse such as ‘lol’ for ‘laugh out loud’, ‘brb’ for ‘be right back’ or ‘idk’ for ‘I don’t know’.

Ex. ‘brb’ was coded ‘ASHORT|brb’

3.3c.ix Phonetic Abbreviations (PSHORT)

These were considered any shortening of a word’s spelling to match its pronunciation. This could be by spelling a word as it sounds when said quickly as in ‘kinda’ for ‘kind of’. Phonetic abbreviations could also be spelling a word using letters and numbers that when said aloud would sound like the word as in ‘c’ for ‘see’ or ‘u’ for ‘you’.

Ex. ‘do u kinda like broccoli?’ was coded ‘do PSHORT|u PSHORT|kinda like broccoli?’

3.3c.x Reduplications (REDUP)

Any reduplication of words, morphemes, phonemes or letters were marked. An example of word reduplication is ‘drunk drunk’ to mean exceedingly intoxicated. An example of morpheme reduplication is ‘go go going’ to mean moving quickly. An example of phoneme reduplication is ‘a looooooot’ to mean very much of something. An example of letter reduplication would be ‘righhhhhhhht’ where the letter does not represent a pronounced phoneme in the word.

Ex. 'whoa whoa whoa, hold on' would be coded, 'REDUP|whoa whoa whoa, hold on'

3.3c.xi Filler Words (FILLER)

In Spoken Discourse, filler words are used to hold the floor and buy time while forming an utterance. Representation of sounds used in speech as filler words which have no intrinsic meaning (e.g. 'um' and 'uh') were marked as filler words.

Ex. 'um' was coded 'FILLER|um'

3.3c.xii Synchronous Conversation (SYN)

Each turn was marked as synchronous or asynchronous. A turn was marked as synchronous if it was entered within one minute (measured to the second), of the previous turn, regardless of who took the previous turn. The first turn of each conversation was marked with regard to the subsequent turn.

Ex. A: SYN|[4:30:32PM]: blah blah blah
B: SYN|[4:31:03PM]: yadda yadda

3.3c.xiii Asynchronous Conversation (ASYN)

A turn was marked as asynchronous if it was entered into the conversation more than one minute (measured to the second), of the previous turn, regardless of who took the previous turn. The first turn of each conversation as marked with regard to the subsequent turn.

Ex. A: ASYN|[3:28:23PM]: such and such
B: ASYN|[3:31:54PM]: this and that

3.3c.xiv Multitasking (MULTITASK)

This code marked for explicit references of engaging in another activity while participating in the conversation. For example, if a participant mentioned that they were working, eating, or watching a movie while having the conversation, the mention of the activity was coded as multitasking.

Ex. 'I may not be super responsive because I'm watching Glee' was coded 'I may not be super responsive because I'm MULTITASK|watching Glee'

3.3c.xv Links to Websites (LINK)

Any link to a website was marked with this code.

Ex. 'www.facebook.com' was coded 'LINK|www.facebook.com'

3.3c.xvi Punctuation (PUNCT)

All punctuation, except for punctuation used for emoticons and pictures, was coded. This includes grammatical punctuation such as periods and commas, as well as punctuation used for spacing and tone such as ellipses. Instances of repeated punctuation

were marked once. For example, a double question mark was coded as PUNCT|question-2.

Ex. 'I don't know . . .' was coded 'I don PUNCT|'t know PUNCT|period-3'

Ex. 'This & that' was coded 'This PUNCT|& that'

Missing punctuation was also coded. In this case, only grammatical punctuation was marked. Punctuation was considered missing if it would have been grammatically necessary in formal writing. Missing punctuation was marked with the code PUNCT|=0#x where x stands for the missing punctuation.

Ex. 'Youre' was coded 'You PUNCT|=0#re'

Ex. 'I walked the dog' was coded 'I walked the dog PUNCT|=0#period'

3.3d Features Coded: Additional Features

In addition, four features were marked for their presence or absence. First, each sentence was marked either complete or incomplete. Each sentence or partial sentence was also marked either grammatical or ungrammatical. Turns were also marked for whether or not they disrupted turn adjacency. Lastly, each turn was marked for holding the floor (making it obvious that the interlocutor would immediately take another turn) or not holding the floor. These features are described below with examples.

3.3d.i Sentence Completeness (SENT|yes, SENT|no)

Complete sentences were coded as SENT|yes. A turn could consist of a single sentence, but could also consist of multiple sentences. If there were multiple sentences in a turn, each sentence was coded.

Incomplete sentences were coded as SENT|no.

Ex. 'doing homework, at the library' was coded as 'SENT|no doing homework, at the library'

Ex. 'I am doing homework' was coded as 'SENT|yes I am doing homework'

3.3d.ii Grammaticality (GRAM|yes, GRAM|no)

Grammaticality was judged by whether or not the utterance could be a well-formed constituent in a syntax tree. The maximal available phrasal unit was used. A maximal unit was considered bounded by the beginning and end of a turn or by sentential final punctuation such as a period, question mark, or exclamation mark. If a turn contained no sentential final punctuation, it was considered as a whole. If a turn contained sentential final punctuation, the individual units separated by such punctuation were considered separately. Similarly to the coding for sentence completeness, this meant that each turn had a minimum of one coding for grammaticality, though maximum number of grammaticality judgments. If a maximal unit was grammatical, it was marked

with the code GRAM|yes. If the maximal unit was not grammatical, it was marked GRAM|no.

Ex. ‘doing homework, at the library’ was coded as ‘GRAM|yes doing homework, at the library’

Ex. ‘working at library, so busy’ was coded as ‘GRAM|no working at library, so busy’

3.3d.iii Disrupted Turn Adjacency (DISRUPT|yes, DISRUPT|no)

Turn adjacency was considered disrupted if there was a turn taken between the initiation and response of an adjacency pair. For example, if an interlocutor asked her partner two questions in successive separate turns, and her partner responded to each in successive turns as well, this was considered disrupted turn adjacency. Disrupted turn adjacency was marked with the code ‘DISRUPT|yes’.

Ex. A: DISRUPT|yes How are you?
A: DISRUPT|yes What did you do last night?
B: DISRUPT|yes I’m good.
B: DISRUPT|yes I went to the movies.

Turn adjacency was also considered disrupted if two topics were being discussed simultaneously.

Ex. A: DISRUPT|yes how are you?
A: DISRUPT|yes btw, I went to go see the Black Swan the other day.
B: DISRUPT|yes I’m good.
B: DISRUPT|yes What did you think?

If a response immediately follow the initiation, then the adjacency pair was not considered disrupted, and was marked with the code ‘DISRUPT|no’. A change in topic was not considered disrupted turn adjacency.

Ex. A: DISRUPT|no How are you?
B: DISRUPT|no I’m good.
B: DISRUPT|no I went to go see a movie last night.
A: DISRUPT|no Oh, what did you see?

3.3d.iv Holding the Floor (HOLD|yes, HOLD|no)

An interlocutor was considered to hold the floor if he made it clear that he would take another turn immediately. If the floor was held, then the code ‘HOLD|yes’ was used. This could be done by not completing the interlocutor’s thought in a single line to indicate that more information is coming.

Ex. A: so I didn’t know what HOLD|yes
A: to do because HOLD|yes

A: I couldn't understand the guy. HOLD|no

When it was not made explicitly clear that an interlocutor would take another turn immediately, the turn was marked with the code 'HOLD|no'.

Ex. A: I didn't know what to do. HOLD|no
A: I couldn't understand the guy. HOLD|no

4. RESULTS AND ANALYSIS

There were a total of fifty-four conversations. Conversations averaged seventy-three turns each, where a turn consists of one single entry of text into the conversation regardless of the length of the text. The longest conversation consisted of 405 turns, and the shortest conversation consisted of a single turn, or rather an asynchronous message left for a conversation partner. Across all fifty-four conversations, there were a total of 3934 conversational turns taken. Forty-one different features were coded for and a total of 36,578 tokens were marked. Table 1 below presents the total number of instances of each feature and the number of instances of each feature per thousand turns. All examples in the Results and Analysis section came from the conversations from this study.

4.1 Features Similar to Spoken Discourse

4.1a Laughter (LAUGH)

Laughter was pervasive throughout the conversations, occurring a total of 537 times, or about once every seven turns on average. Laughter follows Provine (1993) and Provine et al.'s (2007) findings. 'Lol' and 'haha' fall at punctuation points whether right at the beginning of an utterance, at a comma that denotes a pause, or at the end of the utterance. Laughter seems to be outside of the syntax of the sentence. When punctuation was present, it usually excluded the laughter from the sentence.

Ex. eh fine ..i was with u for most of it =>) hehe ...but uhuh now were watching criminal minds so it is infinitely better

In this example, laughter occurs in the middle of the utterance, at the point where there would normally be a comma, but here there is an ellipsis. In any case, the laughter 'hehe' (and importantly the emoticon as well) occur at a natural breaking point in the sentence.

Ex. they think they are in the middle of nowheretry visiting my house! lol

Here, 'lol' is outside of the scope of the sentence. Often, laughter was separated from an utterance by punctuation as in this example, indicating that laughter may be considered extra-syntactic, or not part of the grammatical make-up of the utterance.

Ex. everyone is so rich and dumb lol

Feature	Total Instances	Instances per 1000 Turns		Feature	Total Instances	Instances per 1000 Turns
ASHORT	404	102.69		LAUGH	537	136.50
AST-E	5	1.27		LINK	26	6.61
AST-G	14	3.56		MISSPELL	151	38.38
ASYN	192	57.49		MULTITASK	30	7.63
BCCUE	5	1.27		NEWORD	22	5.59
CAPS	197	50.08		NOCAP	3832	974.07
CLARIF	14	3.56		NOISE	2	0.51
COLLOQ	71	18.05		OSHORT	192	48.81
COMP	32	8.13		O-REPAIR	1	0.25
∅COMP	29	7.37		PICT	7	1.78
CONNECT	637	161.92		PRO	1	0.25
CONT	1197	304.27		PSHORT	218	55.41
DISRUPT no	3756	954.75		PUNCT	4232	1075.75
DISRUPT yes	178	45.25		∅PUNCT	2636	670.06
EMOT	120	30.50		REDUP	231	58.71
FILLER	20	5.08		SENT no	1716	436.20
GRAM no	177	44.99		SENT yes	2679	680.99
GRAM yes	4249	1080.07		SOUND	350	88.97
HOLD no	3701	940.77		S-REPAIR	32	8.13
HOLD yes	162	41.18		SYN	3091	925.45
INF	1432	364.00		total	36578	

Table 1. Frequency of features. Each feature coded is listed alphabetically in the left-hand columns. The total number of instances as well as the mean number of instances per thousand turns is listed in the middle and right-hand columns respectively. A null sign (\emptyset) before a feature indicates a lack thereof.⁴

Again, laughter is at the end of the sentence, but here there is no punctuation to separate it. Importantly, though, it is at the place where punctuation would be. Often there was no punctuation at the end of a sentence, but there was an emoticon or an instance of laughter.

4.1b Informal and Colloquial Language and Contractions (*INF*, *COLLOQ*, *CONT*)

Informal language was extremely common. Informal language occurred in every conversation with a mean of 0.36 instances per turn. Common were words and phrases such as ‘yeah’, ‘okay’, ‘like’ (as a discourse particle), and ‘a lot’.

⁴ Four conversations out of the total fifty-four were submitted without time stamps, and so they could not be evaluated for synchronicity. Note that the total number of instances of the features SYN (synchronous) and ASYN (asynchronous) are lower than they would have been were time stamps available for all conversations. The instances per thousand turns for the features SYN and ASYN were calculated to reflect the actual number of turns present in the fifty conversations that did include time stamps.

Contractions were also very common with 0.30 instances per turn on average.

Colloquial language was less frequent with 0.02 instances per turn. No one colloquialism stood out as more common than another. Some examples were ‘wicked’, ‘geeked out’, and ‘bummer’.

Together, these features indicate that conversations were strongly informal, relying heavily on vocabulary and contractions that would not be acceptable in formal writing.

4.1c Meaningful Non-word Sounds and Backchannel Cues (SOUND, BCCUE)

Backchannel cues were rare, occurring a total of five times throughout the fifty-four conversations. On the other hand, meaningful non-word sounds occurred 350 times through all conversations, or about once every 11.2 turns on average.

Ex. uy, you'd like my roomy.

Ex. oh it's beautiful

Usage of such sounds indicates a replication of Spoken Discourse. However, the lack of backchannel cues shows that spoken conversation is not entirely recreated. Backchannel cues are essential to indicating that a conversational participant is listening in a spoken conversation, while backchannel cues are not necessary in online conversations.

4.1d Self- and Other-initiated repair (S-REPAIR, O-REPAIR)

Self-initiated repair occurred thirty-two times throughout all fifty-four conversations, other-initiated repair only occurred once. The one other-initiated repair was a correction of a spelling mistake, not a typo (the mistaken speller did not know the correct spelling). As shown in the table, there were many more misspellings and typos than there were repairs, indicating that repair is not always essential. Also interesting is the dominance of self- over other-initiated repair. Self-repair was usually to correct a typo, and to express frustration at having difficulty typing.

Ex. A: i know right ...dogs gettin a bad rappp

A: *rep

A: i cant type

Here is shown the asterisk. Nearly every time a self-repair was conducted, the asterisk was used to indicate the repair, showing that a convention has formed for denoting correction of a previous turn rather than entry of new information. This convention is different from Spoken Discourse, which cannot use punctuation, and Written Discourse which cannot make immediate self-repairs. Repairs require extensive context such as corrections made my newspapers which must identify the article and the date of the error, express what the error was, then correct the error. The asterisk is an efficient means to single out the correction for a mistake, with the context still readily available on the screen.

4.1e Requesting Clarification (CLARIF)

Asking for clarification was also rare only occurring a total of fourteen times over all fifty-four conversations, or once every 281 turns on average. Often, the request for clarification was simply a question mark, as in the example below:

- Ex. A: Well, we can always play trauma poker.
B: ?
A: Whoever has the most depressing life story to tell wins.

All that is necessary to ask for clarification is a question mark, an example of the ability of Internet Discourse to take the tools of Written Discourse and apply them to a visual, synchronous conversation in which turns are logged, so information does not have to be repeated. Interlocutor B does not have to explain what she needs clarified, as she would in a written conversation, for example in an exchange of letters. This may correspond with the sound ‘hmm’ pronounced with an upward intonation in spoken conversation, allowing an interlocutor to ask for clarification without speaking a full word.

4.1f New Word Formation (NEWORD)

New words were rare occurring a total of twenty-two times. The first example shows the word ‘girl’ being used as a verb, a non-standard usage:

- Ex. The girliest thing to ever girl.

The second example using active content morphemes:

- Ex. it's very math-y but she teaches well . . .

Both examples represent a flexibility of language usage. These are words and phrases that may be considered acceptable in spoken conversation, but would certainly not be considered formal enough for Written Discourse. This is not to say that new words are not used in written language, of course new words are used all the time, but these examples are playing with language in an informal way.

4.2 Features Similar to Written Discourse

4.2a Usage of Capital Letters for Emphasis (CAPS)

Capital letters were used for emphasis a total of 197 times throughout all conversations.

- Ex. Hi , I'm SO sorry.

Usage in the online conversation was the same as in Written Discourse.

4.2b Complementizers (COMP, øCOMP)

Complementizers occurred a total of thirty-two times, while they were missing twenty-nine times throughout all conversations.

Ex. I know that I'm only in it for fun.

Ex. the biggest downer was [ø that] I was sick all weekend

The fact that they were used in about half of the applicable locations shows no preference in the online conversation for more or less formality with respect to complementizers. This indicates an equal influence from both Spoken and Written Discourses.

4.2c Logical Connectors (CONNECT)

Connectors were used 637 times or an average of once every six turns. This shows that there was some level of complexity in sentence structure, since logical connectors are used to express complex relationships between sentences. Simple connectors such as 'and' and 'but' were most common, however more complex connectors were used as in the following example:

Ex. A: And, having gone into the bathroom, the implication would become obvious.
A: However, in this case, no such obviousness was present, and thus explanation was in order.

'However' expresses a more complex relationship of contrast rather than simply adjoining related sentences as 'and' and 'but' do. The presence of logical connectors indicated a certain level of syntactic complexity, though the fact that simpler connectors were more common indicated that the syntactic complexity was still not of the same caliber of Written Discourse.

4.2d Orthographic Abbreviations (OSHORT)

There were 192 orthographic shortenings marked over all conversations. As expected, some orthographic shortenings were formed by chopping off a portion of the word as in 'sec' (short for 'second') in the first example, and others were formed by removing some letters from within the word as in 'sry' (short for 'sorry') in the second example:

Ex. (even though the next one is like coming in a sec lol)

Ex. sry its been so confusing!

Orthographic abbreviations as common in quick Written Discourse, and the presence, though not overwhelming presence, of them indicated an influence from Written Discourse.

4.2e Cataphora (PRO)

Forward reference, or cataphora, occurred only once throughout all the conversations in the following example:

Ex. A: oh, if you're looking for awesome 80's style rebellious rock, try this:
A: <http://www.youtube.com/watch?v=UpSHC1dqX1o>

Cataphora is present mostly in Written Discourse over Spoken Discourse because it requires a visual context. It is difficult to use forward reference in Spoken Conversation because it is taxing to have to wait for the referent to be mentioned before understanding the context of the pronoun. In Written Discourse the context of the pronoun is still available to the reader when the referent is mentioned, allowing for the reader to return back to the cataphoric reference. The author expected to see more forward reference in the online conversations the previous turns of the conversation are always available. The lack of cataphora indicates an influence from Spoken Discourse, regardless that the tools for forward reference are available to the interlocutors of an online conversation.

4.3 Features Unique to Internet Discourse

4.3a Emoticons (EMOT)

Emoticons occurred much less frequently than the author anticipated. Emoticons only occurred once every 33 turns on average, with a total of 120 tokens. The emoticons used were <_< and >_> , ;-), O.O , =/ and :/ , =p , =) and =(, :) and :-), :-\ , :-(, :(, :-D , :? , xD and XD , =D , :9 , :-P , ;P , =-O , <3_<3 , >:| , :((, :3 , and O:-).

4.3b Emotions Offset by Asterisks (AST-E)

These only occurred a total of five times across all conversations. Only three different participants used these to say *sigh* , *hearts* , and *bleh* . The few uses of emotions offset by asterisks may indicate that they are no longer common to use and they are going out of style, or perhaps that they are more common in another context of Internet Discourse, perhaps in Internet Relay Chats or on message boards.

4.3c Gestures Offset by Asterisks (AST-G)

Gestures offset by asterisks were used fourteen times in total. Only one participant utilized this feature to say phrases such as *scratches "light fire to world" off of date ideas* , and *commercial break* .

Similarly, there were two examples of asterisks being used for emphasis from two different interlocutors. One used in the sentence, 'you're *above* them' , and the other to say, 'but I can deal with this it's not like *that* bad comparatively but I wish it would stop' .

Again, the lack of gestures offset by asterisks may indicate they are specific to a certain age group, perhaps older users if such expressions of gestures were more common previously, or that they are more common in another context of Internet Discourse, not in one on one online conversations.

4.3d Pictures (PICT)

The only picture that was used was <3 , occurring a total of seven times across all conversations. Interestingly, the <3 was reduplicated to <333 once, and was used as part of an emoticon as <3_<3 .

4.3e Recreation of Noises in the Environment (NOISE)

Recreating the noises of the environment only occurred twice. Once was to recreate the sound of a passing siren, ‘WoooEEEEoooo’, and the other the sound of a phone going off, ‘its like beeebbbeepbeepbeep’.

4.3f Misspellings and Typos (MISSPELL)

There were 151 misspellings and typos, occurring on average once every twenty-six turns. Some such mistakes were misspellings caused by hitting the wrong key, or hitting multiple keys at the same time:

Ex. I've seen some extremely drumk people on the orange line but other than that it's not bad (3 and 4 convo 1, 641)

Others were grammatical mistakes, here using ‘your’ where the interlocutor should have used ‘you’re’:

Ex. as long as your passing lol (19 and 20 convo 2, 152)

To reiterate the point made in the Self- and Other-Initiated Repair (4.1d), there were many more misspellings and typos than there were repairs made. This indicated that mistakes were easily understood by the ‘listener’.

4.3g Lack of Capitalization (NOCAP)

There were 3832 tokens of lack of capitalization, occurring on average just more than once per utterance. Clearly, non-capitalization was pervasive. One example is the failure to capitalize the first word of a sentence:

Ex. what's up?

Another example is the failure to capitalize proper nouns and the word ‘I’:

Ex. like i have to put together my presentation in the next 2 days

Yet another example was the failure to capitalize acronyms, such as those standing for organizations, that require capitalization (here the example is ‘slpa’, while ‘new york’ is another example of the failure to capitalize a proper noun):

Ex. 6426 my top two are language acquisition research at the slpa's affective science lab here at northeastern and an applied linguistics/social media research thing in new york

The lack of capitalization indicated a level of informality. Of course, there is no capitalization in Spoken Discourse, though even in informal Written Discourse, capitalization is generally used correctly. When writing with a pen, it does not take any more effort to write a capital 'I' than a lower case 'i'. However, when typing, capitalizing requires the use of the Shift key, slowing down typing speed. The pervasive lack of capitalization may be a technique to increase efficiency and speed of typing, allowing for a faster paced conversation. Though, as indicated below by certain phonological spellings of words (4.3i) and by asynchronous usage (4.3n) and multitasking (4.3p), efficiency and speed may not be of the highest priority.

4.3h Acronymic Abbreviations (ASHORT)

There were a total of 404 tokens of acronymic shortenings, occurring on average about once every thirteen utterances. Some were standardly used acronyms in speech and in writing such as 'NEU' (short for 'Northeastern University'), or 'fyi' (short for 'for your information'). Others were more specific to online discourse such as 'idk' (short for 'I don't know'), 'brb' (short for 'be right back'), 'lol' (short for 'laugh out loud'), and 'btw' (short for 'by the way'). A standardized lexicon of acronyms has allowed for fast communication of a select set of common ideas and expressions. Acronyms have certainly proliferated since Internet Discourse became common. Of course, acronyms are common in Written and even Spoken Discourse, especially to refer to organizations and places. Though, the author believes that Internet Discourse has given rise to many acronyms that stand for phrases rather than organizations and places, creating part of a specialized lexicon of the online conversant.

4.3i Phonetic Abbreviations (PSHORT)

Phonetic shortenings were less common than acronymic shortenings with a total of 218 tokens. Some were standard in informal written contexts such as 'gonna' (orthographically representing an informal pronunciation of 'going to') and 'cos' (short for 'because'). Others were more specific to online discourse such as 'u' (for 'you') and ('r' for 'are'). An interesting one was 'OSM' (short for 'awesome').

Sometimes acronymic shortenings were combined with phonetic shortenings such as 'ttu later' (short for 'talk to you' later), and 'g2g' (short for 'got to go'). 'biff' was used as a representation of the pronunciation of the acronym 'bff' (short for 'best friend forever'). 'biff' represents an interesting crossover between acronyms used online and Spoken Discourse. This particular word is evidence that some acronyms originating from Internet Discourse are becoming widespread enough to use as words in Spoken Discourse. In this case the online acronym 'bff' was used as a spoken word. A vowel was backfilled into the word to allow it to become pronounceable, and the new word was then reintroduced to online conversation.

Sometimes 'shortenings' were actually longer than the words they were meant to represent. For example, 'mehbeh' (phonological representation of an altered pronunciation of 'maybe') takes more keystrokes than the original word, therefore not saving the interlocutor time. This indicates that economy of time may not be the most important factor driving 'shortcuts' such as orthographic, acronymic and phonetic shortenings and lack of capitalization.

In this case the filler word was used to soften the question, showing that the interlocutor knows that he must ask something to start conversation but is unsure what to ask. The ‘uhh’ was almost as if to say ‘I guess this is what I’m supposed to ask now’.

So, filler words in sometimes may be used for the same purposes as in Spoken Discourse, i.e. to buy time, but may also be used for new purposes such as to make a situation feel less awkward.

4.3n Synchronous vs. Asynchronous (SYN, ASYN)

Out of the total fifty-four conversations, fifty had time stamps. Four conversations did not have time stamps due to a data collection error.

Asynchronous text was defines as more than one minute between entries, synchronous text one minute or less. Asynchronous text occurred in a majority of the conversations with at least one instance in thirty-three out of fifty conversations. Synchronous text, however was the norm with 3091 instances across all conversation as opposed to 192 instances of asynchronous text.

Asynchronous text was often used to leave messages for the other conversation partner when they were not there, similar to email. When the other partner logged on, they would receive the message on their screen, and could respond, leaving a message for their partner if they were no longer online. In other instances, in the middle of conversations there would be a lull of one minute to a few minutes before conversation would resume again.

Sometimes asynchronous communication was caused by multitasking as in the example below.

Ex. A: [1:02:46 PM] hello again
B: [1:09:01 PM] ah, sorry for the delay.
B: [1:09:03 PM] watching tv

Multitasking is discussed below in (4.3p). On other occasions there was simply a lull in the conversation.

Ex. A: [11:54:47 PM] nice. you planned this semester well
B: [11:59:15 PM] haha yup

Lulls in conversation are natural in Spoken Discourse, but rarely is there complete silence in a conversation for five minutes where the silence is broken by a response to the last turn. In Internet Discourse, because the previous turns are left on the screen, breaking the silence with a five-minute delayed response is not odd, as in the above example.

Other times there was a message that was intended to be asynchronous.

Ex. A: [11:56:03 PM] hey, its alright, I was totally MIA the last few days too. Tuesday (15th) and Wednesday (16th) ill be online after 3 pm, so anytime after that we can talk.
B: [3:26:29 PM] hi!

Message leaving is another example of the versatility of Internet Discourse. It is a space where synchronous and asynchronous communication can happen seamlessly. Neither Written nor Spoken Discourse can be both synchronous and asynchronous. Spoken Discourse requires that both interlocutors are present simultaneously, and Written Discourse pre-supposes the separation of the interlocutors. This is not an example of the blending of Spoken and Written Discourses, but rather of a third form of synchronicity, one in which there is no synchronicity. A conversation can take place at a rapid pace at which turns are taken every two seconds, or it can take place at a pace at which there are only a few turns per hour. Either way, the same conversation is taking place. A message can be left intentionally asynchronously or a synchronous conversation can take place with the same medium.

4.3p Multitasking (MULTITASK)

There were thirty explicit references to engaging in another activity over 21 out of the total 54 conversations. In some instances, the interlocutor apologized for their split attention, as in the first example:

Ex. sorry, i'm getting distracted getting myself set up to do work

However in other cases, it was taken for granted that engaging in another activity was acceptable, as in the following example:

Ex. A: [8:37:07 PM] soooo wattup
B: [8:38:04 PM] not much. skypeing with my parents

In the second example, there is a fifty-seven second delay between the initiation and response, nearly qualifying for asynchronous under the definition in this study. Taking part in another activity severely slowed the pace of the conversation. In the conversation of the second example, there were several asynchronous turns (though these turns were not much more than one minute after the previous). The ability to multitask while having conversations in this way is unique to Internet Discourse. Of course, an interlocutor can be washing dishes and talking, for example, but it is difficult to engage in another activity that takes focus while sustaining a conversation. In Internet Discourse, an interlocutor is able to pay attention for a few seconds, and then return to another task for a minute, then return to the conversation for a few seconds, back and forth. Again, the visual nature of the conversation is crucial to the ability to pay or not pay attention when convenient. A spoken turn is gone once spoken, and if the listener was not listening at that exact moment, he would not be able to respond, however in ID, the turn is entered into the conversation, and stays there until the 'listener' is able to read it. The ability to selectively pay attention to the conversation constitutes another unique feature of ID.

4.3q Links (LINK)

Links were used to share websites and multimedia information. Twenty-six links were shared, most of them music.

Web addresses can be shared in Written Discourse, however there is no interactive element. Sharing links in an online conversation allows for an interlocutor to

introduce multimedia information much more easily, and with the ability for feedback that of a synchronous (or rather semi-synchronous) conversation.

4.3s Punctuation (PUNCT)

Table 2 below provides a list of all punctuation that was coded for in the study. Of the basic punctuation (periods, commas, exclamation marks, and question marks), the most common was the comma, followed by the period. This reflects a tendency for periods to be omitted at the end of a turn, and for most turns to be comprised on one sentence or grammatical unit.

Similarly to Written Discourse, question marks and exclamations could be reduplicated for emphasis such as ‘AH!!!!!!’, the only example of six consecutive exclamation marks from the conversations. Exclamation marks and question marks were combined to express a shocked question, same as in Written Discourse.

Different from Written Discourse, ellipses (here two or more periods) were used to represent a logical connection between two statements, similar to the function of a semicolon as in the following example:

Ex. mm and it was my first dept meeting ... my lab was bad at inviting anyone not a grad student

Here the ellipsis separates two related sentences. In the following examples, periods were used to trail off at the end of a statement or question:

Ex. and yet i still have my laptop open ...

Ex. okay. so 5pm tomorrow ...?

In this way the periods were used to affect temporality, drawing out how the words would be pronounced to create a certain effect. Periods could also be used to hold the floor, indicating that the interlocutor would be taking another turn immediately, as in the next example:

Ex. A: It's ...
A: ...It's so beautiful

However periods were much more often missing than present. There were 2228 instances of places where there should have grammatically been a period, but there was no punctuation at all. This indicates that while ellipses may be useful to create a certain effect, periods alone were non-essential. In all of the possible instances of a period, in only about a quarter of them was a period actually present. Often, a comma was used instead of a period as well, separating two complete sentences:

Ex. ya most of mine were before break, I have one more tomorrow though blagh

In the above example, ‘most of mine were before break’ is a complete sentence, and ‘I have one more tomorrow though’ is another complete sentence. With formal

punctuation, the two sentences should have been separated by a period, however the comma is used to take its place. A period, by itself, is not an essential tool for punctuating Internet Discourse.

One punctuation mark that seems non-essential, but was actually used in nearly 80% of possible instances was the apostrophe. There were 1004 instances of apostrophes with only 274 instances of lack of apostrophes. The author was surprised to see the proper usage of apostrophes the majority of the time, since contractions and possession would be easily understood if the apostrophe were missing. The pervasive use of

Punctuation Mark	Total Instances	Instances per 1000 Turns	Punctuation Mark	Total Instances	Instances per 1000 Turns
period [.]	837	212.76	apostrophe [']	1004	255.21
period-2 [..]	36	9.15	quote ["]	130	33.05
period-3 [...]	179	45.50	dash [-]	90	22.89
period-4 [....]	23	5.85	colon [:]	46	11.69
period-5 [.....]	3	0.76	open parenthesis [(]	37	9.41
period-6 [.....]	1	0.25	close parenthesis [)]	36	9.15
period-8 [.....]	1	0.25	slash [/]	33	8.39
			asterisk [*]	23	5.85
comma [,]	919	233.60	ampersand [&]	11	2.8
			dollar sign [\$]	3	0.76
exclamation [!]	400	101.68	backslash [\]	2	0.51
exclamation-2 [!!]	17	4.32	equals sign [=]	2	0.51
exclamation-3 [!!!]	7	1.78	semicolon [;]	2	0.51
exclamation-4 [!!!!]	3	0.76	aroba [@]	1	0.25
exclamation-5 [!!!!!]	1	0.25	less than sign [<]	1	0.25
exclamation-6 [!!!!!!]	1	0.25	plus [+]	1	0.25
			underscore [_]	1	0.25
question [?]	533	135.49			
question-2 [??]	3	0.76	ø period [.]	2228	566.43
question-3 [???]	2	0.51	ø apostrophe [']	274	69.65
			ø question [?]	39	9.91
exclamation-question [!?]	2	0.51	ø comma [,]	34	8.64
			ø colon [:]	17	4.32
			ø slash [/]	12	3.05
			ø quote ["]	3	0.76
			ø dollar sign [\$]	1	0.25

Table 2. Frequency of punctuation marks. Each punctuation mark is listed in the left-hand column. The total number of instances of each punctuation mark and the number of instances per thousand turns are listed in the middle and right-hand columns respectively. The null sign (ø) indicates a lack thereof.

apostrophes is another example of the lack of importance of the economy of time. While grammatically required, the apostrophe is non-essential to the communication of the idea, and so their inclusion in a contraction could be seen as wasting time in an environment of few capital letters and many abbreviations. However the interlocutors took the time to include apostrophes.

4.4 Sentential Completeness, Grammaticality, Turn Adjacency, and Holding the Floor

Table 3 below lists the features of section 4.4. The numbers are identical the those in Table 1.

4.4a Sentential Completeness (*SENT|yes, SENT|no*)

Almost 61% of sentences were complete. On average, each turn consisted of .68 complete sentences and .43 incomplete sentences. This indicated that sentences did not need to be complete for communication of ideas. This separates Internet Discourse from Written Discourse, which is comprised almost exclusively of complete sentences. A mixed use of complete and incomplete sentences is more akin to Spoken Discourse. Often a sentence was incomplete because it simply expressed laughter, or the utterance lacked a subject.

4.4b Grammaticality (*GRAM|yes, GRAM|no*)

Utterances were almost always grammatical. 96% of utterances were grammatical. Importantly, sentences were not typed in telegraphic form, omitting function words. This, again, indicated that economy of time is not necessarily important. Ungrammatical turns were most often lone emoticons or lone punctuation.

4.4c Disrupted turn adjacency (*DISRUPT|yes, DISRUPT|no*)

In similar proportions to grammaticality vs. ungrammaticality, disrupted turn adjacency occurred for a total of 178 turns while non-disrupted turn adjacency occurred 3756 times. Over 95% of turns were non-disruptive. Clearly, there was usually a temporal organization to the conversations resembling a spoken conversation. There were two kinds of disrupted turn adjacency. First, in which one conversation partner introduces two topics to his partner, and the partner responds to each one in turn.

Feature	Total Instances	Instances per 1000 Turns	Feature	Total Instances	Instances per 1000 Turns
SENT no	1716	436.20	DISRUPT no	3756	954.75
SENT yes	2679	680.99	DISRUPT yes	178	45.25
GRAM no	177	44.99	HOLD no	3701	940.77
GRAM yes	4249	1080.07	HOLD yes	162	41.18

Table 3. Frequency of sentential completeness, grammaticality, disrupted turn adjacency, and holding the floor. The features are listed in the left-hand columns. The total number of instances of each feature and the number of instances per thousand turns are listed in the middle and right-hand columns respectively.

Second, in which one conversation partner starts a new conversation topic before the previous topic is closed, and both are discussed for a period of time. The first example here is of the first kind:

- Ex. A: nothing much. i'm proctoring right now haha, so i might not be that responsive. what are you up to?
A: (btw, this is kind of weird, haha)
B: library, doing work
B: yea i noticed that too

Below is an example of interlocking adjacency pairs of the second kind:

- Ex. A: if you have different strengths and you ascribe to the RA lifestyle, then you'll like it
A: are you considering it?
B: yea makes sense, do you get free housing?
B: i was
A: yeah

Disrupted turn adjacency is always resolved quickly within a few turns, it is never remarkable as it would be in Spoken Discourse. If two topics were entered into conversation simultaneously in a spoken conversation, the mismatching topics would have to be resolved before the conversation could continue. In the second example above, interlocutor B was able to take a second turn in a row to answer interlocutor A's question. In a spoken conversation, interlocutor B would have given up the floor by asking a question of his own, and interlocutor A would have had to ask the question a second time, or interlocutor B would have had to wait for his next turn to answer. In Internet Discourse, neither is necessary. Both interlocutors can discuss both topics, taking turns as they please without blocking each other from speaking or getting topics confused.

The greatest number of topics open at the same time throughout all fifty-four conversations was two, as shown in the examples above.

4.4d Holding the floor (HOLD|yes, HOLD|no)

While there were occasions that an utterance was intentionally left incomplete to indicate that the interlocutor was about to take another turn this was rare with 162 instances of an interlocutor making it obvious that they would take another turn, as opposed to 3701 instances in which a turn did not need to be followed up immediately. This feature did not mark for whether or not the interlocutor did actually take the next turn, just whether or not they made it obvious that they would try to.

Two techniques were used to indicate that an interlocutor was going to take another turn immediately. First, an interlocutor would not complete a thought in a single turn leaving their turn grammatically open, requiring another turn to complete the thought as in the example below:

- Ex. A: but once you accept that your a dork

A: i just stop hiding it !

Another technique was to use an ellipsis to indicate that the interlocutor had more to say on the topic, as in this example:

Ex. A: omg I've been reading about the situation in Japan ...
A: and I'm pretty sure 2012 is coming ...

The second technique is not foolproof. Often interlocutors would end a turn with an ellipsis with no further information to give. As discussed above in (4.3s), the ellipsis would be used for the effect of trailing off.

The author was surprised by the low number of instances of disrupted turn adjacency. The low number of instances indicated that conversations are generally temporally organized and one topic is treated at a time. However the presence of a non-trivial number of instances of disrupted turn adjacency shows that it is common, occurring on average once every twenty two turns, and that it does not negatively affect the organization of the conversation.

5. DISCUSSION

5.1 Confirmation of Previous Findings

The present study confirms many of the findings of previous studies. Hentchel (1998) found that capital letters were used for emphasis of words or to denote raised voice. He also found that emoticons were used to express emotion and represent facial expressions, while emotions were also expressed offset by asterisks. Also in his study he found reduplicated forms that were impossible to pronounce. Lastly, he found that entering partial ideas as turns was used as a technique to hold the floor and indicate that the interlocutor would immediately take another turn. All of these findings were confirmed with the present research.

The usage of informal terms such as 'okay' and 'sure' found by Ferrara et al. (1991), was also confirmed.

Al-Sa'di and Hamdan (2005) emphasized that self- and other-initiated repair, as well as requesting clarification was made possible by the synchronous nature of online discourse. The present data showed small, but not negligible amounts of each of these features.

The present study builds upon Provine et al.'s (2007) found that the acronym 'lol' and emoticons were found at punctuation points on online message board postings, mimicking the punctuation effect of laughter (Provine, 1993) in Spoken Discourse. All forms of laughter as well as emoticons occurred at punctuation points in the instant messaging conversations of the present research.

Werry (1996) found that gestures could be expressed by offsetting them in asterisks. He also found that pictures could represent physical items. Also discussed in Werry (1996) was the expression of non-linguistic noise to recreate sounds in the environment. Again, while only a few instances of each of these features were found, Werry's (1996) findings were confirmed by the present research. In addition, Werry (1996) found phonetic and orthographic shortenings and posited that they were used to

save time in typing. He argued that fighting to hold the floor and the desire to communicate more quickly forced interlocutors to shorten the number of characters necessary to express themselves. The present study finds that, while there is some evidence that techniques are used simply to shorten word and phrases, there is evidence that time is not of the essence in instant messaging communication. In the present study some phonetic representations of words were longer than word they represented when spelled correctly. Also, overwhelmingly utterances were grammatical, when function words could have been deleted as Ferrara et al. (1991) found that some of their participants did. In addition, participants in the present study often multitasked, indicating that they were not fighting for time and space on the screen. These differences may be fueled by a difference in medium studied. Werry (1996) examined internet relay chats, a multi-person medium, while the present research examined instant messaging, a two person medium.

Berglund (2009) found that conversations were generally temporally organized with little adjacency pair disruption, however that when adjacency pairs were disrupted, it did not negatively affect the organization of the conversation. The present study reached these same findings.

Lastly, Baron's (2004) suspicion that participants were multitasking while communication online was likely confirmed. Participants in the present study often multitasked, stating explicitly so in the conversation. It is likely, though not provable, that there were more participants multitasking than stated so in the conversations, not talking to their partner about their other simultaneous activities.

5.2 Novel Findings

The present research also reached novel findings. Contractions were found to be common, and similarly to informal and vague language found by Ferrara et al. (1991), shows that in some ways Internet Discourse does mirror the informal nature of Spoken Discourse. New word formation was also found, another informal feature on ID.

Werry (1996) and Hentchel (1998) discussed several features that seemed to attempt to recreate the physical and linguistic environment of Spoken Discourse. The present study found many uses of non-word speech sounds that carried meaning such as 'hmmm' and 'eh'. These words may be used for the purpose of orthographically representing the metalinguistic sounds present in a spoken conversation.

Conglomerations between phonetic and acronymic abbreviations were found. Phrases like 'ttu later' combine an acronym for 'talk to you' with a phonological shortening of the word 'you' to 'u' forming the abbreviation 'ttu'. Abbreviations such as these the malleability of language online, changing its shape and playing with the form of the language easily.

Misspellings were also found to not negatively affect conversation. A small percentage of misspellings and typos were corrected, but the majority left unfixed and not mentioned. The language used did not need to be precise to communicate well. Similarly, words were often not capitalized when they would have been in Written Discourse. This, too, apparently had no negative effect on the ability for interlocutors to communicate clearly with one another.

Instant messaging is considered a synchronous form of communication. However, the present study found that most often communication was synchronous,

however a nontrivial amount was asynchronous including several minute long lulls in the middle of conversations, and asynchronous message sending while the other participant was not present. It was found that neither participant needs to pay attention to conversation at any one time to continue the conversation. Both participants can focus on other activities, devoting a few seconds here and there to read the messages from a conversation partner and enter new text into the conversation. This finding is in stark contrast to Sacks, Schegloff and Jefferson's (1974) assertion that transitions with little or no gap between speakers make up the majority of transitions in Spoken Discourse. Synchronous may not be an accurate term to describe instant messaging. The term semi-synchronous may better reflect the fact that participants enter and leave the conversation frequently, but do not need to be participating simultaneously.

Punctuation was also found to be different from conventional WD. Periods were not necessary for clear organization of ideas and were replaced with commas, emoticons, laughter, or were implied by the end of an entry of text. Ellipses were used frequently and for both temporal spacing as Werry (1996) found, but also to connect full sentences or ideas and to indicate that the interlocutor wished to hold the floor.

5.3 Internet Discourse as an Independent Form of Discourse

Internet Discourse does share a significant amount in common with Spoken and Written Discourse, however ID has many features of its own. Ferrara et al. (1991), described synchronous online communication as 'interactive written discourse'. This term expresses two elements: first, and most explicitly, the written form of the conversation is emphasized, asserting a similarity to Written Discourse; second, the conversational nature of online conversation is expressed by the term 'interactive'. 'Interactive' is an apt term to describe the semi-synchronous form of ID. However, 'interactive written discourse as a whole is not a representative term for ID. It may be that Internet Discourse has more in common with Spoken Discourse due to the informal features of online conversation than with WD. Even so, 'interactive written discourse' fails to take into account the unique features of ID.

Other research has sought to place Internet Discourse on a continuum between Spoken and Written Discourses. Accurately captured in this conception is that fact that different discourses can influence each other. However, this model also fails recognize the unique features of ID.

Internet Discourse expresses emotion fundamentally differently from Spoken and Written Discourse. The use of emoticons and the expression of emotions and gestures offsets between asterisks cannot be accounted for by either Spoken or Written Discourse. In addition, a pervasive lack of capitalization is unlike even informal WD. New hybrid forms of abbreviations such as 'ttu' discussed above indicate ability for ID to play with language in a way that WD is unable to. Additionally, the rules of punctuation are different for ID than for WD. Distinguishing ID from SD, Internet Discourse is semi-synchronous, whereas SD is fully synchronous. A spoken conversation cannot continue if both parties are not listening, on the other hand an online conversation records turns and so an interlocutor can 'listen' and 'talk' when they please, allowing conversation partners to devote only limited attention to each other while performing other tasks. Reduplication also functions distinctly in ID, allowing for reduplication in ungrammatical and unpronounceable forms. Together, this evidence indicates that Internet Discourse

should be considered its own independent form of discourse. It is sufficiently distinct from Spoken Discourse and Written Discourse to be considered so.

5.4 Shortcomings of the Present Study

The participants of the study may not be a fully representative sample, since participants were disproportionately linguistics students. In addition, there were many more females than males in the study and no male-male conversation partners. Lastly, data collection techniques were not perfect. In four of the conversations time stamps were not available, leaving the researchers only able to analyze fifty out of the fifty-four conversations for synchronicity. And, in five of the conversations the conversation logs did not differentiate between the participants, which did not affect the researcher's ability to code for any features, but was a flaw in the data collection.

6. CONCLUSION

Internet Discourse may have originally been born as a hybrid between Written and Spoken Discourses. It still maintains much in common with both. Provine's (1993) punctuation effect of laughter is found. Informal language, typical of spoken conversation was found to be exceedingly common in the conversations studied. While backchannel cues were not common, meaningful non-word sounds such as 'oh' and 'hmm' were found to be littered throughout the studied conversations. Self- and other-initiated repair, while not occurring often, were present, and are a hallmark of the synchronous nature of SD, along with the ability to request immediate clarification, also present in the studied conversations. Additionally, new word formation occurred mimicking the flexibility of informal speech.

Written Discourse also showed a significant influence on Internet Discourse. Just as in WD, capital letters were utilized for emphasis of particular words and phrases. Complementizers were used about 50% of the time that they could be, indicating a certain level of formality in the syntactic structuring of sentences and phrases. Logical connector usage similarly indicated a higher level of syntactic structuring that is more common of Written discourse than Spoken Discourse. Orthographic shortenings were also common, similar to WD. It is obvious that Internet Discourse is heavily influenced by both Spoken and Written Discourses.

Despite the strong influences that Internet Discourse is under, Internet Discourse has a large number of features of its own, and has repossessed, as it were, some features of Spoken and Written Discourses. ID's semi-synchronous form and its ability to flexibly change words through new word formation and reduplication, create hybrid abbreviations, and its unique usage of punctuation all indicate that Internet Discourse should be considered its own corner in a triangular continuum with Spoken and Written Discourses.

To further establish Internet Discourse, more research must be conducted to examine other media of ID. Text messaging, email, and Facebook wall conversations may all provide fruitful grounds for establishing what features are common to all Internet Discourse, and what features are specific to certain media. Instant messaging alone cannot be used to establish Internet Discourse as independent, despite the fact that the present study found similarities with internet relay chat (Farias, 2008; Hentchel, 1998; Werry, 1996), online message board postings (Provine et al., 2007).

Further research can be done to examine Internet Discourse's influence on Spoken and Written Discourse. The word 'biff' used by one participant in this study indicates that the online acronym 'bff' was used in spoken conversation enough to necessitate that it became a word, and so it was pronounced as it was spelled and a vowel was supplied. This shows that there is an influence of ID on SD. Research could be conducted to learn how much influence ID has on SD. How many acronyms originating from ID are used in SD, and with what frequency? What age range is most influenced by ID in their speech? There may also be influence of ID on WD. To what extent are acronyms and emoticons used in formal writing, especially by younger writers that grew communicating on the internet?

Finally, research could be conducted on different levels of influence of Spoken and Written Discourses on Internet Discourse in different contexts. Can education level predict how much WD or SD influences an individual's ID? It might be expected that the higher the education level of an individual, the more WD influences her online communication. Although age may also be a strong predictor of the level of influence of WD or SD on an individual's ID.

The conception of Internet Discourse as its own unique form of discourse opens a new field of study in sociolinguistics. Increasingly, the internet is used on portable devices and has become an ubiquitous element of life. As more and more communication takes place online it will become increasingly important to understand Internet Discourse.

References

- Al-Sa'di, R. A. & Hamdan, J. M. (2005). "Synchronous online chat" English: Computer-mediated communication. *World Englishes*, 24 (4), 409-424.
- Baron, N. (2004). See you online: Gender issues in college student use of instant messaging. *Journal of Language and Social Psychology*, 23, 397-423. doi: 10.1177/0261927X04269585
- Berglund, T. (2009). Disrupted turn adjacency and coherence management in instant messaging conversations. *Language@Internet*, 6, article 2.
- Brown, G., & Yule, G. (1983). Discourse analysis. Cambridge, UK: Cambridge University Press.
- Chafe, W. L. (1979). The flow of thought and the flow of language. In Givón, T. (Ed.). *Syntax and semantics volume 12: Discourse and Syntax*. New York: Academic Press.
- Cicourel, A. (1981). Language and the structure of belief in medical communication. In Sigurd, B. & Svartvik, J. (Eds.). *Proceedings of AILA 81 Studia Linguistica* 5, 71-85.
- Dresner, E. & Herring, S. (2010). Functions of the nonverbal in CMC: Emoticons and illocutionary force. *Communication Theory*, 20, 249-268. doi: 10.1111/j.1468-2885.2010.01362.x
- Farias, M. (2008). El ciberlectico de las salas de chateo: ¿Conversación escrita o escritura conversada? *Forma y Función*, 21, 347-360.
- Ferrara, K., Brunner, H., & Whittemore, G. (1991). Interactive written discourse as an emergent register. *Written Communication*, 8 (8), 8-34. doi: 10.1177/0741088391008001002
- Fullwood, C. & Martino, O. (2007). Emoticons and impression formation. *Applied Semiotics/Sémiotique Appliquée*, 19, n.p., retrieved from <http://french.chass.utoronto.ca/as-sa/ASSA-No19/Article1en.html>
- Givón, T. (1979). From discourse to syntax: Grammar as a processing strategy. In Givón, T. (Ed.). *Syntax and semantics volume 12: Discourse and Syntax*. New York: Academic Press.
- Goffman, E. (1981). *Forms of talk*. Oxford, UK: Basil Blackwell.
- Hentschel, E. (1998). Communication on IRC. *Linguistik Online*, 1, n.p. retrieved from <http://www.linguistik-online.de/irc.htm>

- Labov, W. (1972). *Sociolinguistic patterns*. Philadelphia: University of Pennsylvania Press.
- MacWhinney, B. (1993). *The CHILDES database: Second edition*. Dublin, OH: Discovery Systems.
- Ochs, E. (1979). Planned and unplanned discourse. In Givón, T. (Ed.). *Syntax and semantics volume 12: Discourse and Syntax*. New York: Academic Press.
- Provine, R. R. (1993). Laughter punctuates speech: Linguistic, social and gender contexts of laughter. *Ethnology*, 95, 291-298.
- Provine, R. R., Spencer, R., & Mandell, D. (2007). Emotional expression online: Emoticons punctuate website text messages. *Journal of Language and Social Psychology*, 26 (3), 299 – 307. doi: 10.1177/0261927X06303481
- Sacks, H., Schegloff, E., & Jefferson, G. (1974). A simplest systematics for the organization of turn-taking in conversation. *Language*, 50, 696-735.
- Schegloff, E. (1981). Discourse as an interactional achievement: Some uses of ‘uh huh’ and other things that come between sentences. In Tannen, D. (Ed.). *Proceedings from Georgetown University Round Table on Languages and Linguistics: Analyzing discourse: Text and talk* (pp. 71-93). Washington, D.C.: Georgetown University Press
- Schegloff, E., Jefferson, G., & Sacks, H. (1977). The preference for self-correction in the organization of repair in conversation. *Language*, 53 (2), 361-382.
- Schegloff, E., & Sacks, H. (1973). Opening up closings. *Semiotica*, 7, 289-327.
- Schiffrin, D., Tannen, D., & Hamilton, H. E. (Eds.) (2001). *The handbook of discourse analysis*. Malden, MA: Blackwell.
- Sinclair, J., & Coulthard, R. M. (1975). *Towards an analysis of discourse: The English used by teachers and pupils*. Oxford, UK: Oxford University Press.
- Werry, C. (1996). Linguistic and interactional features of Internet Relay Chat. In Herring, S. (Ed.). *Computer-mediated communication: Linguistic, social and cross-cultural perspectives* (pp. 47-63). Philadelphia: John Benjamins Publishing Company.