Encoding The Interpersonal Meaning Of Online Messages In A Virtual Graduate Seminar

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With the rapid growth of computer-mediated communication in education, researchers have taken different approaches towards the analysis of online messages in a virtual learning environment. This paper takes the systemic functional approach to investigate the electronic exchanges among students in a virtual graduate seminar in a large Canadian university. Two functions of language – ideational and interpersonal functions, are examined for the understanding of social presence in electronic academic discourse. The interactivity of the online messages in a text-based learning environment are also to be addressed. The findings suggest that students in online discussion used various types of linguistic devices to express the interpersonal meaning and some of them are particular to the text-based learning setting. Social cues were more apparent at the opening-up stage than the topic discussion stage. The significance of discourse analysis for pedagogical implications is also discussed.

1   Introduction

In the past two decades, the world has seen a rapid development of computer mediated communication (CMC) technologies and their applications in all walks of life. With this fast growth, CMC is also gaining popularity in education, especially in higher educational settings. Such online communication tools as email, electronic bulletin board and computer conferencing are being more frequently incorporated with college or university classroom instruction. In order to drive rather than be driven by technology, however, we need to understand the nature of communication in the new electronic medium in educational settings and to gain insights into its impact on the formation of an online learning community. Only by doing so can online education be effective (Wolfe, 2001). Given a general impression of CMC as written conversation (Herring, 1996), linguistic features of online communication have been examined and its likeness to spoken language has been shown in many aspects. At the same time, higher education researchers have also recognised the social interactive element in online learning settings. No thorough investigation, however, has been conducted on the establishment of the online learning climate through analysing online messages composed by students.

In this paper, we will encode social interactivity in online messages exchanged in a partially virtual graduate seminar and describe the interpersonal function of electronic discourse in a text-based learning environment, following the systemic functional approach towards discourse analysis. The purpose of the investigation is to understand how interactivity is established in the online community of inquiry and how this interactivity has influenced learning through the electronic medium. Engagement in this type of research is important because it can extend our understanding of the formation

and operation of an online learning community and provide practical implications to best serve the needs of online learners and instructors (Selfe, 1998).

2 Research background
2. 1 CMC: Spoken or written language?

Computer-mediated communication has emerged as a major medium of teaching and learning through establishing a discussion forum in a steadily increasing number of universities. The fast growth of CMC in education has inspired researchers' interest in analysing electronic discourse from different perspectives. In terms of mode, which is the means of communication, online interaction seems to be a form of written communication because it is typed and similar to writing. On the other hand, it very often happens in the form of interactive exchanges at a relatively high speed, so it also shares features of spoken language. In the growing body of literature on CMC, some studies have already found that the linguistic aspect of online communication is both spoken and written. For instance, the analytical result of the linguistic features of 1,353 messages sent and received over three years by the developers of the Common Lisp programming language (Yates and Orlikowski, 1993) demonstrated that online discourse contained elements of both spoken language (like informality) and written language (like textual formatting) as well as emoticons. The researchers concluded that the context of interaction influenced the particular combination of linguistic and textual characteristics. In a corpus-based study, Yates (1996) found that CMC is much closer to writing than speech in terms of range of vocabulary and lexical density. This shows that CMC users seem to transmit information in the way that is more written-like than spoken-like. But the same study also suggests that CMC is much higher in the use of first and second person pronouns than either speech or writing. This indicates that personal reference is highly frequent in online communication. Collot and Belmore (1996), along with Biber's (1988) multidimensional-multifeature approach on identifying spoken or written English, found that there are a lot of similarities between discourses in an electronic bulletin board and public forms of discourse like spontaneous speech, interview, etc. Their result, they claimed, was a more exact characterisation of electronic language than would be possibly by simply contrasting it with 'spoken' and 'written' linguistic forms (Herring, 1996). In another major study of linguistic features of electronic discourse, Werry (1996) described the language used in Internet Relay Chat, which is different from the forms of communication described in the above three studies in mode: It is synchronous rather than asynchronous. The findings suggested that online discourse shows a high degree of addressivity and a strong drive towards brevity and abbreviation. In a study examining email messages in two contexts, Gains (1999) found that online communication in an insurance company shared a lot of features of standard written business English, while academic email data showed more conversational characteristics such as using more greetings and social formula.

These findings are exciting in that they illustrate the multi-faceted nature of electronic discourse, and in particular, the interactive aspect of online communication in varied cases. What is under-researched in these studies, however, is the value of the interpersonal function of online discourse, especially in the academic context. What is the purpose of using the interactive language in online communication? What meaning do online learners ascribe to the social interactive use of electronic interaction? What climate is built up in the online learning community? And what part does it play in the

online learning process? This paper is an attempt to answer the above questions from the functional linguistic perspective.

2. 2   Social interactivity in CMC-based learning settings

As the use of CMC technologies has grown in education, the interactive characteristic of online interaction is not only noticed by scholars of linguistics, but also by educators, especially in higher education situations. Educational technology researchers or CMC-based course instructors have observed that in educational settings, online exchanges endorse interpersonal and social effects of CMC, including both task-oriented and socially oriented or casual exchanges. Some studies have shown the capacity of CMC in supporting highly affective interpersonal interactions in the new online learning environment. In a content analysis of messages generated in a CMC-based course, Angeli, Bonk and Hara (1998) found that 27% of the total message content contributed to the expressions of feelings, self-introductions, jokes, compliments, greetings, and closures. Hara, Bonk and Angeli (1998) found in another study that the number of social exchanges decreased over time in a virtual graduate course. The examination of the correlation between cognitive tasks and social cues indicated that the eighth of the twelve weeks had the lowest number of social cues and the highest cognitive task frequency (88.1%). In a study on the development of group dynamics in educational computer conference settings, McDonald and Gibson (1998) observed that expressions of openness and solidarity rose from 18% and 40% of the total respectively at the beginning to 36% and 54% at its conclusion. Taking a constructivist perspective towards an analysis of a professional development conference, Kanuka and Anderson (1998) found that the amount of social interchange was much higher than expected. In a study examining how effective social presence is as a predictor of learner satisfaction in an inter-university computer conference, Gunawardena and Zittle (1997) found social presence is a very strong predictor of satisfaction. Results from these studies suggest that computer conferencing can support both the cognitive and affective dimensions of higher education. Questions then come up to our minds: What is the function of the social interactive dimension of online discourses in educational settings? How can this aspect of CMC help to set up an online learning community?

Some educators or instructors have already attempted to find answers to these questions. In a study of interactions in an online graduate seminar, Zhu (1998) claimed that online discourse shows a transformation of students' interaction from interpersonal to intrapersonal planes when they change from dialogue to monologue through online interaction. This transformation facilitates their generating new values, theories and perspectives. Studying the use of CMC in the Korean higher education context based on Walther's (1996) theory of CMC and its explanation of interpersonal effect, Kang (1998) found that social interaction serves to build up a feeling of closeness in the text-based community of inquiry, where facial cues of interaction are lacking. Social exchanges are believed to be attributed not only to social status, but to shared concerns, interests and electronic struggles. Social interaction develops over time as group cohesiveness and the ability to handle conflicts and reach consensus among students are growing. On the other hand, previous studies seem to suggest that time is a determining factor in shaping social interaction. Hiltz et al. (1986) found that it was hard to build up interpersonal relationships within limited time periods.

In brief, social presence has been recognized as a crucial element in the online learning environment. In Henri's (1992) analytical model of online messages in higher education, the social element, which is defined as "statement or part of statement not related to the formal content of subject matter", makes up one of five dimensions of online exchanges,. Simply put, social interaction in an online learning community is off-task communication. Henri examines this aspect of online exchanges because she claims that this type of discourse is important in establishing social presence, building up rapport and promoting the growth of community, especially in constructing a learning environment which is meant to join a set group of learners for an extended period of time. There is further development in theory on the significance of social presence in CMC-based learning settings. In investigating the elements of an online community of inquiry in higher education, Garrison et al. (2000) identified social presence as one of the three crucial components contributing to the formation of a CMC-based learning environment. They state that communication for inquiry in the electronic medium is to be established through familiarity, skills, motivation, organizational commitment, activities and length of time (pp. 5-6). Social emotional interaction and support is important in realising meaningful outcomes. Online learning is quite often viewed as collaborative learning, but they point out that collaboration goes beyond simple interaction and declarative instruction; understanding and creating knowledge is also a collaborative process. Social presence in online learning marks a qualitative difference between a collaborative community of inquiry and a simple process of downloading information. Moreover, in their model of online community of inquiry, they have categorised social presence into three groups (which is elaborated in Rourke et al, 1999). The three categories are affective responses (for example, the use of emoticons, humour and self-disclosure), interactive responses (for example, quoting directly from the conference transcript, and referring explicitly to the content of others' messages) and phatic responses (for example, greetings and salutations, vocatives, etc.). This team research has presented a model for analysis, but needs sufficient empirical data and adequate analyses to support their theory. This paper is an attempt to fill this gap by offering a detailed analysis of online exchanges in a partially CMC-based graduate seminar.

3   Research methodology
3. 1   Theoretical framework for analysing online exchanges in this study

The existing body of literature on researching online communication in educational settings has shown that, to date, no well-established analytical framework for examining electronic messages has been brought out. Researchers have attempted investigation into the features of online messages with different approaches. For instance, Howell-Richardson and Mellar (1996) proposed a methodology for the content analysis of computer conferencing based on Speech Act theory to indicate the patterns of interaction in different task designs. Gunawardena, Lowe and Anderson (1997) set up an interaction model for examining social construction of knowledge in an online debate. Zhu (1998) approached electronic messages in an undergraduate distance-learning class in terms of note categories and participant roles. Although some have looked at real examples from online communication (see Gains 1999; Sengupta, 2001), few qualitative studies seems to have analysed the function of interpersonal meaning in online messages used in educational applications following the functional discourse analysis methodology.

The functional discourse method is chosen for the present study because of two major benefits it offers for data analysis:

1. It is based on the model of language as social semiotic (Halliday, 1973) and therefore can link together language and social contexts for the use of language;

2. It offers an integrated, systematic model of language which enables discourse patterns "to be described and quantified at different levels and in different degrees of detail" (Eggins and Slade, 1997, p. 47).

Of the three metafunctions of language (ideational, interpersonal and textual) described in the functional model, the interpersonal meaning of language is particularly concerned about roles and relationships such as intimacy, contact and sharedness between interactants (Eggins and Slade, 1997, p. 49). This aspect of language use conforms to the purpose of this study, which is aimed at encoding social presence in the online learning environment and examining the interpersonal function of language in forming a text-based community of inquiry.

Eggins and Slade (1997), along the line of systemic functional linguistics, have come up with a solid model for analysing casual conversation, the primary task of which is the negotiation of social relations and identity (p. 50). Their framework is also supported by detailed empirical data analysis following practical guidelines. Although casual conversation is different from online interaction in mode, it is proposed that the interpersonal function of language in both situations must be realised in similar ways, given the likeness of online communication to spoken language (as seen from the above review of research on the linguistic features of electronic discourse). The present study is particularly influenced by Eggins and Slade's methodologies for analysing discourse structures of casual conversation and exploring how support and confrontation are negotiated through interaction. Their model offers a systematic method to encode role relations, attitude and humour of casual conversation at the lexical-grammatical and semantic levels. These methods include the ways of analysing mood and modality and of encoding appraisal and involvement. Even though online interaction is text-based, social meaning is assumed to be partially realised through language. Despite mode difference, there must be similarities in expressing interpersonal ideas between face-to-face interaction and online interaction.

Social presence does not automatically come into being. As with any other means of communication, we assume that participants in the online learning environment must adapt linguist behaviours of the solicitation and presentation of socially revealing and relational behaviours (Garrison et al., 2000, pp. 6-7). Eggins and Slade's (1997) model provides a useful guideline for analysing these linguistic behaviours and describing the function of interpersonal meaning in online messages.

3. 2   Unit of analysis for encoding discourse functions

In order to ensure a systematic examination of online data, it is necessary to define the unit of analysis. The unit for analysis must be objectively recognisable, properly encompassing the construct under investigation. At the same time, it must maintain an adequate level of reliability for the significance of research (Rourke et al., 1999). For analysing discourse functions of online interaction in this study, the notion of "moves" is borrowed from Eggins and Slade's (1997) framework, as "Halliday suggests that the discourse patterns of speech function are expressed through moves" (p. 185). In

casual conversation, a move is a unit of discourse that serves a single speech function. Although closely related to the turn-taking organization of conversation, it is different in that a turn includes all the talk produced by one speaker before another one can get in and may cover several speech functions, whereas a move only performs one speech function. Linguistically, a move is realised by one or more clauses as long as each performs the same speech function. In this study, the move analysis will be applied to the examination of discourse functions in opening online messages.

4   Research site

This study conducted discourse analysis of online messages in a graduate seminar, a three-week summer course on bilingualism and language planning in the TESOL (Teaching English as a second language) program in a large Canadian university. The participants included the instructor and twelve graduate students, six of whom were non-English native speakers, but whose language proficiency was advanced enough for online discussion. In addition, six out of twelve students had experience using online communication in learning settings. Seven students met the instructor in the traditional face-to-face seminar while the others participated in online discussion only. The computer tool for online interaction was an asynchronous forum in WebCT (course tool) packages. Any participant in the seminar could initiate online discussion by posting a message on the electronic bulletin board with a definite subject and the others could choose to read, to reply or just to ignore it. Due to the limited space of the paper while with the vast number of messages for analysis, the data presented here are only some examples for illustration.

The impetus for this study originated from some participants' comments in the virtual graduate seminar under investigation on their online experience. They said that when reading online messages, they felt that they could "hear" someone "talking" to them simply through reading. In this study, we attempt to conduct a linguistic analysis of CMC in this partially virtual graduate seminar and encode the meaning of social interactivity in such an online learning environment. The research questions for this study are addressed as follows:

1. How are the interpersonal meanings realised in online communication linguistically?
2. What is the function of interactional meanings in the online learning setting?

5   Data Analysis
5.1   Getting online interaction started

Data analysis, as mentioned earlier, is conducted in two stages. The first is to look into the discourse structure of online messages, and the other is to encode interpersonal meaning at the lexical-grammatical level. If online discussion is viewed as a continuous, ongoing multi-party conversation, we may wonder: how is it initiated? To answer this question, our analysis will begin with the messages that were posted by the students who first participated in online discussion. After the instructor posted a welcome message to the forum, a student came up with the following posting,

(Note: All the messages cited here are the same as the students' original messages except for the boldface. All the boldface in the following online messages is used

by the researcher for emphasis. For the sake of confidentiality, students' names have been changed.)

Move	Discourse Function	Clause	Message
Attending		1	Hi, **everybody!**
Statement : Opinion	Attitudinal information	2	I'm **very excited** to have another opportunity to learn a lot with WebCT.
Statement: Fact	Factual information	3	I'm Sakura …, a master's student in TESL, teaching English as a second language.
		4	**I'm** from Japan.
		5	**I** will examine how this WebCT can be adopted in Japan, especially at a secondary school level.
Closing	Ending interaction	6	**I'll** see **you** in class!
		7	Sakura

This message is followed by another student's response:

Move	Function	Clause	Message
Attending/ Engaging	Seeking attention and showing willingness to interact	1	Hello, **everybody**.
Statement: Opinion /support	Responding to the prior message with supportive statement	2	**Just like Sakura, I** am **very glad** to have a second time to use WebCT for the coming course.
Statement : Fact	Factual information about oneself	3	I am Yan . .., from China, majoring in MLED.
Wishes	Showing positive intentions	4	**Hope**
		5	**we will all enjoy** working with **each other** by using this WebCT.
Closing	Ending interaction	6	Best
		7	Yan

Another student with no previous experience of using WebCT also posted his first online message with self-introduction, but it was not listed under the same subject as the above two; instead, he initiated a new subject ("Website") for the message:

Move	Function	Clause	Message
Attending	Seeking attention	1	Hello!
Statement: Information	Self-introduction	2	My name is Medas …
Statement: opinion	Positive attitudinal statement	3	**I am glad**
		4	That **I** will be working with **you**!
Statement: Information	Offering information	5	If **you** are interested in using technology in the classroom,
		6	there is a website that **you might be** interested in.
		7	This website is for the Language Learning Center at Michigan State University.
		8	The address is: http://polyglot.cal.msu.edu
Wishes	Showing positive intentions	9	**I hope**
		10	**you** find it useful.
Closing	Ending interaction	11	Best wishes,
		12	Medas

In terms of discourse structure, one turn in online discussion is realised by one message. Because in this message, the participant can hold the floor until ideas are fully expressed without having to worry about others' interruption, there is usually more than one move that takes place in a single online message. To put it in another way, there are usually several discourse functions realised in one online message. In these initial postings, participants tried to express such functions as seeking attention, showing willingness to participate, self-introducing and expressing wishes in the opening moves. The predominant speech functions are giving personal information and positive attitudinal statements. Self-disclosure helps to shorten the distance between interactants, especially when they lack face-to-face contact. Expressing good wishes demonstrates not only their willingness to participate in online discussion but also their potential contributions to it.

Sufficient evidence can also be found at the lexical level to help us understand how a friendly speech community is built up through online interaction. Appraising terms such as "excited", "glad" appearing in all the three messages are used to produce positive affect of the participants. Their expressed emotions must influence others who would follow them and put the whole group of discussion in a good state to talk online. The word "very" is an intensifier amplifying the affectual appraisal ("excited" and

"glad") after it and enhancing the feeling to a great degree. In addition to adjectives and adverbs, verbs are also a device to express emotions. In these cited online messages, good intentions are realised with such verbs as "enjoy" and "hope".

Online interaction is different from oral communication in that it lacks the use of prosodic features to add stress onto lexical items. In the text-based environment, interactants turn to other linguistic devices in order to compensate for this disadvantage. In the above three messages, one salient feature is the students' expressing "intonation" by using punctuation (the exclamation mark "!"). It occurs twice respectively in the first and third messages and functions as an indicator of the emphatic tones of the interactants. Slightly different is the second message since there is no use of the exclamation mark in it. However, the realisation of affect in this message is still affirmed by using the lexical devices mentioned above. Another difference between the second message and the others is that it has the only case of using the plural first-person pronoun ("we") while in the dominant use of "you" and "I" in all the three messages. Together with the amplifier "all" and the phrase "each other", "we" conveys a sense of closeness of the online community. This sense of closeness is also echoed by the use of "everybody" in the beginning of the first two messages. These inclusive pronouns, occurring in the initiating messages, enhance the feeling of being close and must be helpful in laying down a foundation for building up a friendly, supportive community of inquiry in the virtual graduate seminar.

Apart from the lexical realisation of affectual meanings, social meaning can also be encoded at the grammatical level. In functional terms, it is realised by modality. When giving factual information on "Website" in the third message, the student played down the force of his being an expert by using "might" (you might be interested in). This expression of modality reduces the degree of the speaker's certainty and helps to put him down to the position equal to others, despite the show-off of his knowledge at the initial stage of forming the online learning community. In the other two messages, "will" is used for a few times to show students' inclination or desire to set up a friendly atmosphere for this community of inquiry.

It is worth noting that the above three initial messages share a surprising similarity in generic structure. The layout of moves is patterned in the same way. This may lead us to wonder whether online community norms might be formulated through mutual assimilation, especially the imitation of the first few messages. This topic is beyond the scope of this paper, but it certainly needs researchers' further exploration on the formation of online community.

5. 2   Engaging in topic discussion

While the online community of inquiry was being established, students gradually engaged in topic discussion with each other. The following strand of messages came up at the end of the first week. It is obvious that the ideational function of language is more evident in them than in the initiating messages. To highlight the interpersonal meaning in these messages, the analysis will focus on the lexical-grammatical layer of the messages and ignore the discourse functions, as these functions are more linked with ideational meaning rather than interpersonal meaning.

Hi, Lynn, Sunny and everyone!
Re: introducing EFL into the elementary level of the schooling system as a compulsory subject.

I am **so interested** in **your** discussion because Japan is also trying to make all young children learn English. Regarding this issue, **I** have found an **interesting** article in TESOL Matters, Vol 9 No.3. Written by David Nunan, entitled "Does Younger = Better?" According to Nunan (1999), "given the lack of empirical support for the 'younger =better' hypothesis, educational authorities **should** exercise caution before committing themselves to the early introducation of foreign languages" (p.3). What he is trying to stress here is that this initiative **needs to** be carefully planned, adequately supported and resourced, and closely monitored and evaluated. **I believe**, his warning is **very insightful** because the research which supports "younger = better' position has been done not in the EFL contexts, but in the ESL contexts (Singleton, 1989).

Therefore, **it seems to me** that **we need to** thoroughly consider professional development, official funding, and other important factors before introducing EFL in the elementary school.

In the above message, the terms and phrases in the boldface are all employed to express the interpersonal meaning. The beginning of the message has a greeting, showing that the student was engaging the discussion. The following vocative is used to target the audience. Although "everyone" is included here, specific attention is drawn to some particular participants for their focus of discussion on the topic. The appraisal terms such as "interested", "interesting" and "insightful" serve to convey affectiveness of the speaker's message. This affect is enhanced by the use of amplifiers like "so" and "very". Moreover, the clause "I am so interested in your discussion" demonstrates strong interpersonal relations just before starting discussing the topic itself. This clause is an indication of acknowledgement of what has been contributed by others, and at the same time, it shows the willingness of the student to participate in the discussion. It also serves to sustain the discussion on the topic. The high frequency of first and second person pronouns helps to enhance the closeness of the online community. In addition, the grammatical realisation of interpersonal meaning is interesting to talk about here. When offering the ideational information, the student used the modality showing a high degree of certainty or obligation (should, need to, I believe). This indicates the trust of the student in the authority of the article. Towards the end of the message, the student plays down her tone by saying that "it seems to me". The relatively lower degree of certainty it transmits is the indication of her trying to put herself down to a status equal to the peer students despite the authoritative knowledge she offers. Although there is no case of interrogative mood in this message, the lexical-grammatical realisation of interpersonal meaning conveyed still shows a tendency of being inviting and open for further discussion. The message is not only linked to the prior discussion by giving the affective response at the beginning but initiates the further discussion.

Now let us look at the message responding to the above one.

Hi Sakura.
Thanks for sharing **your** finding on David Nunan with **us**. I agree with his position. Is younger = better? I find some of **my** students began learning L2 before they have had somewhat solid foundation in L1. This creates a dilemma because they often struggle with the concept of a language, its usage and components. Having no foundation in L1, they cannot resort to any reference point to help them comprehend the concept of language and linguistic manipulation. A long time ago, a professor in some area of language development (whose name I can no long recall) recommended that I should try to establish a semi-solid foundation for **my** L3 before attempting a L4. Perhaps he was referring also, in part, to the danger of attempting too great a cognitive-linguistic task before one is ready for it. **Certainly an issue for further discussion! Just out of interest**, what is the subject of your paper? **You** seem to be **engaged** in **a great deal of very interesting** reading and net-surfing!
Chris

This message shares some similarities with the prior one in the use of first and second person pronouns and the greeting at the beginning of the message, indicating the closeness of the community. The term of appreciation "thanks" shows her acknowledgement of the peer student's contribution. However, what is interesting here is the change from plural "us" to singular "I". It is the transformation from joining in multiparty discussion to engaging in individual thinking. The following part of the message may be just a monologue to herself. While getting across her own opinions, she did not forget there was potential audience at a distance. So there is a rich element of social interaction in the course of expressing ideational ideas. The question"Is younger = better?"not only highlights the main issue mentioned in the previous message, but also initiates the following part – the student's own thinking about the issue. The clause is a link between the above and the following. The commenting part ends with an elliptic clause (there is no subject or finite), which indicates the student must have finished with intrapersonal thinking and has come back to the community of inquiry. The metacognitive thinking about the issue may arouse others' interest in or reaction towards it. The use of the exclamation mark at the end is an indication of the speaker's stressing tone. The second part of the messages begins with a WH interrogative mood "what is your paper about?" It is used to elicit additional information from peer students and the student plays an initiatory role. However, this demand for information may sound a challenge to the potential respondent. The following part "just out of curiosity" is helpful in tuning down this challenging force. Once again, it shows the equal status among the students in this online learning community. The follow-up of complimenting statements is a positive evaluation on the fellow student's work and efforts. It offers mutual support and encouragement, helping with the formation of a friendly, supportive community.

The WH interrogative in the second part of the above message serves as a probe leading to a responding message. Another assurance of a reply is given by the vocative the student used targeting the particular listener. It would be against the etiquette of communication if the targeted audience did not give a reply. The next message is the response:

> Hi, Chris.
> **Thanks** for **encouraging** me to think over my final paper. The paper consists of four sections:
> (1)　　Autobiography – my personal history of language learning and teaching
> (2)　　Current curriculum and classroom culture – what is happening in Japan?
> (3)　　Advantages and disadvantages of introducing computer and WebCT into English language classrooms in Japan really useful and effective?
> (4)　　A proposal for revising curriculum – English and technology
> I will post it as soon as I finish writing my first draft.

Similar to the prior message, the vocative is still particularly linked to the one student who posted previously. Again, it begins with appreciation of peers' support. The main body of the message is a point-form outline of her paper. With the mere offering of information and low realisation of interpersonal meaning in the message, the interaction between the two students might have stopped here, but another student who had not contributed anything to the topic jumped into discussion simply out of her "interest". Consider the next message:

> **Sakura, I'm interested** in learning about Japan's current situation in the education system, and your experience of schooling there. **Is the system similar to China', with the examinations to get into highschool, and then college?**

> **I am also interested** in learning about the usefeulness of the internet for learning in the Japanese curriculum. **How similar/different is the situation in universities? Is the use of the Web as prevalent in general s it is in Canada?**
> Shirley

In this short posting, the appraisal term "interested", occurring twice, results in strong affectiveness. The interrogative mood system is also remarkable here. Two polar questions and one WH question serve as triggering events to elicit responding information from the particular correspondent who is indicated by the vocative in the beginning. The demanding tone again is softened by the appraisal term used before the raised questions. There might be little possibility that the addressed student would give no reply to such a message.

Here comes the response:

> Hi, Chris.
> **Thanks** for **encouraging** me to think over my final paper. The paper consists of four sections:
> (5)   Autobiography – my personal history of language learning and teaching
> (6)   Current curriculum and classroom culture – what is happening in Japan?
> (7)   Advantages and disadvantages of introducing computer and WebCT into English language classrooms in Japan really useful and effective?
> (8)   A proposal for revising curriculum – English and technology
> I will post it as soon as I finish writing my first draft.

This posting is a reply to the two questions asked in the prior message. The beginning of the message is similar to the above two ones in that it is to target the audience with vocative and to express affectual meaning (appreciation). The following part is focused on the information demanded by the requestor. Language use to some extent is formal and academic so that it is rather like a monologue by the student herself. However, the end of the first paragraph comes up with something off-topic; it makes the message return to the dialogue pattern. The use of modality (will) and appraisal term (hope) once again indicates the social relation between the student and other participants. She is not alone in online writing, but engaged in conversation with someone invisible yet certainly attentive to her ideas. The second part, again, is on the whole the realisation of ideational meaning. On the other hand, the two cases of using modality (pretty sure, would like to) add some conversational flavour to it, making it once more part of dialogue rather than monologue. To the questioner, the replying message is not only informative but also interactive. It is no wonder that she gives the following response to the message:

> Sakura, I think that your English, and especially your knowledge and **willingness** to inquire about SLA thoery **are exemplary**! Your enthusiasm **helps to intrigue** others (such as me) to **aspire** to the same goals!

The few lines are filled with terms showing her admiration for the student. This can certainly lead up to the supportiveness and closeness of the community of inquiry. Appreciation of a student's efforts encourages the student to progress with academic studies. After finishing answering the questions, the student, in the next message, not only shows her gratefulness of others' encouragement, but also begins to inquire on peers' work. She now turns from an informant to a demander, as seen from the following writing:

> **Hi, Shirley, Medas and all.**

> **Thanks** for your encouragement for me to write a final paper! I am almost there, and am planning to post it by the end of this week. (I'll try "student presentation"!)
> **How about your paper, everybody? Could you share the outline of your final paper on the bulletin board, as some of us have already done earlier?** I am **curious** to know what other fellows are doing.

Once again, the affectual use of language (I am curious, could you share…) plays down her forceful tone and makes her demanding voice alleviated. The interrogative mood used here is the indication of her changing role. The questions asked are probes into others' replies and help to shape the pattern of the constructive dialogue in the electronic medium. Comparing the opening of the online interaction with the topic discussion part, it can be seen that addressivity at the beginning of all the messages is of great significance in forming a complete community of inquiry and such inclusive pronouns as "everyone" or "everybody" are frequently used. Names used in the closing are necessary at the opening stage for the sake of identification. As discussion goes on and students are getting more familiar with each other, naming at the end of posting becomes optional, whereas vocative is often specified by indicating a particular name. Exchange of personal information in the second part is more task-related than self-introductory. The discourse functions in the opening messages mainly serve the interpersonal purpose. During the topic discussion, ideational information is mixed with social, interactive use of language, which is not only the exchange of ideas and opinions but also transmission of emotions. The positive affective feedback helps to involve students in participation and arouse their willingness to contribute to online discussion. The declarative statements very often serve to demonstrate students' appreciation and admiration while the interrogative clauses function to sustain a topic discussion or initiate new topics for exploration. Through the establishment of social relations, a close, comfortable learning setting is set up in the electronic medium (Carey, 1999). Students acknowledge mutual awareness and provide mutual support and encouragement.It is worth noting that even though it is a supportive online community of inquiry, it does not mean that there is only agreement and no discord in students' interaction with each other. The next message may help us understand how one student gets across his disagreeing opinions to the fellow students by using innovative ways of expressing feelings in the online environment.

> Hello Ming.
> I agree that it is more difficult for students to pick up accents when the differences are not big.
> Regarding to your answer about if you are an ESL teacher in Canada, who speaks English with an accent, how and what would you fee? "I would feel sorry for my students." **I feel VERY SORRY** for you and **TOTALLY disagree** with it. I am a qualified NON_NATIVE ESL/EFL teacher . I had to carry with that burden, provided by me and the institutions who preferred native speakers, for a long time. However, I have realised that as non-native speakers, we have **A LOT** to offer. We have been through the process of learning a second language. We have much more knowledge about grammar than native speakers do. **I am sure** that we can bring many things into the classroom. **NOBODY is perfect!!!!!!!!**

Here the student's intense feeling of disagreement and confrontation is transmitted by using uppercase letters and the exclamation mark. The words like "very", "a lot" and "totally"amplify the intonation and draw attention from others. These means are a compensation for the lack of paralinguistic or prosodic communication strategies that appear in face-to-face communication (see Werry, 1996).

Showing differences in opinions is an indication of critical thinking. Continuing disagreement even may be a productive outcome of communication (Brookfield and Preskill, 1999). What is important is that the ambience of the community of inquiry should be facilitative for students to speak out about their different or confronting ideas. Students should not feel threatened when they want to let others know about their own opinions. In this virtual graduate seminar, the gradually built-up closeness of the online learning setting seems to have reduced the anxiety of the student on showing his difference on a certain topic. As Eggins and Slade (1997), found in casual conversation, disagreement and critical evaluation are more characteristic of those who share strong bonds, rather than of new or transient acquaintances. To set up an online community of inquiry and initiate and respect a great variety of opinions and ideas, a close interpersonal relation among students needs to be encouraged and enhanced.

From the above analysis of messages exchanged in a partially virtual graduate seminar, we may identify social presence as a key element in the online learning environment. At the beginning stage of opening up the electronic communication, students tried to build social relations through doing self-introduction, offering personal information, giving positive wishes, and sharing a willingness to participate in online interaction. As the personal connection was developing, students felt more familiar with one another and engaged more in topic discussion. The sense of closeness had made them feel comfortable to post their different opinions. Over time, both supportive remarks and confronting ideas could emerge. The ideational function of language combined with the interactive use of language became the heart of online discussion. If the online exchange of academic thoughts is viewed as students' intellectual connections with one another, then the social, interpersonal meaning of language is to facilitate their expression of ideas through online communication.

6   Conclusion

This study has attempted to encode social presence in a partially CMC-based graduate seminar through analysing online messages in line with the functional approach towards discourse analysis. The detailed lexical-grammatical and semantic examination of online exchanges suggests that the online participants in this virtual seminar had tried to set up a friendly, close and supportive online learning community by using various types of linguistic devices. The appraisal terms were used to show mutual support and appreciation. The vocative used at the beginning of the messages was meant to demonstrate a willingness to participate as well as mutual awareness. During online discussion, students also tried to equalise their status while playing the role of a knowledge expert through the use of different types of modality. Polar and WH interrogative types of mood help online participants seek information and opinions and shape the discourse pattern of online discussion. However, when a message is predominated by the declarative mood, it is also very likely to have a responding message simply because of another student's interest in certain ideas of the message. A comparison between the opening stage of the online discussion and the stage of students' engaging in topic discussion indicates that at the beginning, interpersonal information is dominant in online messages in order to establish an online community. As time was going on, online interaction was more embedded with ideational meaning and students were developing a kind of multi-party academic conversation. The interpersonal function of online messages was to make the talk of academic content more interactive. By

analysing the online messages in terms of grammatical patterns, semantic patterns and discourse functions, we can see that electronic discourse in this virtual graduate seminar is shaped by contextual constraints in online interactional settings. The social interaction among the participants helps them to be bound to one another and to comfortably and frankly exchange opinions.

This type of discourse analysis of online communication not only describes the nature of the text-based learning community, but also offers rich implications for CMC-assisted instruction. For instance, when students are new to online learning, the engagement in online discussion may be difficult. The first few messages should be of great significance to arouse students' interest in participation and make them feel comfortable in the innovative learning setting. Students need to know each other well before they can engage in critical thinking and learning in a community. Like in face-to-face classroom situations, the instructor should consider the means of breaking the ice in the text-based learning setting. In addition, the analysis of online messages on topic discussion demonstrates that question types in online exchanges helped to shape the pattern of students' interaction, which is the educational outcome of CMC-based instruction. Feedback from students or the instructor is a major factor influencing online interaction (Vrasidas and McIsaac, 1999). It should be useful if the instructor can provide guiding statements or questions at the right times so as to keep online discussion going through appropriate responding, either from the instructor or students. The discourse analysis of online exchanges can shed light on how to guide students in the written language towards pedagogical goals through meaningful communication.

Online discussion has emerged as a new way of teaching and learning. How can online discussion be designed to promote a rich, thoughtful discussion while maintaining a close, supportive learning climate? This study has only touched upon the social presence in the online learning setting. More research has to be conducted to explore the comprehensive complexity of online interaction and gain a deep understanding of online communication for educational applications.

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94

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