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Received: 29 April 2008 / Accepted: 19 February 2009 © International Society of the Learning Sciences, Inc.; Springer Science + Business Media, LLC 2009	7 8
Abstract Genre analysis, the investigation of typified communicative actions arising in recurrent situations, has been developed to study information use and interchange online, in businesses and in other organizations. As such, it holds out promise for the investigation of similarly typified communicative actions and situations in CSCL contexts. This study explores this promise, beginning with an overview of ways that genre analysis has been adapted and applied in related areas: in the study of group behavior in organizations, and of evolving and proliferating communicative forms, actions and situations on the Internet (emails, blogs, FAQs, etc.). Focusing on the particular genre of the Internet "posting" in CSCL contexts, the paper hypothesizes that the educational use of this genre bears recognizable similarities with its generic antecedent, the letter. In testing this hypothesis, the paper describes a pilot case study of a set of CSCL postings (n=136), which attempts to quantify the occurrence of rhetorical characteristics common to both the epistolary and CSCL "genres." This content analysis shows the recurrence in this sample of a range of rhetorical markers (240 in total) that are characteristic of epistolary dynamics. It concludes by considering the implications of these findings and of a "genre approach" for CSCL research generally, and for community of inquiry models in particular. Keywords CSCL Epistolary form · Genre analysis · Content analysis · Rhetorical analysis	10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25
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Overview

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This paper begins by introducing the concept of "genre," providing an summary of the

ways in which it is used as a category and framework for research. In doing so, the paper

gives special emphasis to the way that genre has been utilized in research into

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organizational dynamics, and into the proliferating communication forms and practices on the Web and the Internet. Focusing on the particular Internet genre of the "posting," the paper discusses the comparability of this form with its generic antecedent, the letter. It then presents the hypothesis that that the dynamics of epistolary or letter-based communication are applicable to online discussions in educational contexts. In its methods section, the paper sets out to test this hypothesis through a pilot case study of a set of posts (n=136) generated over the course of a week in an online class discussion. This case study is undertaken using content analysis, specifically by deploying a coding frame based on a number of rhetorical characteristics found in both the epistolary and CSCL "genres." This content analysis shows the recurrence in this sample of a range of rhetorical markers (240 in total) that are characteristic of epistolary dynamics (or "epistolarity").

In discussing the results of this analysis, the paper considers the implications of epistolary dynamics specifically for the theoretical frameworks that inform a great deal of research in CSCL. Among the most significant of these implications is that participants in these fora are not simply responding to teacher instructions and tool affordances, but are reproducing epistolary forms and dynamics that have been a matter of comfortable familiarity for hundreds of years.

Introducing genre

Genre can be defined as a "kind; sort; style" or more specifically as "a type of literary work characterized by a particular form, style, or purpose" (OED 2007). Traditional examples of *fictional* genres include the novel, novella and short story. Applied to organizational and institutional settings genre is used to study forms and practices associated, for example, with the business letter, memo, and other commercial communications. Applied to the Web, the term can be used to designate digital "kinds" or "forms" such as email messages, FAQs, home pages, blog entries, etc. The analysis of these and other genre categories can include inquiry into the elements of their content and form, their evolution over time, as well as their functions in the communities or organizations in which they are used. As a result, it is perhaps no surprise that the "genre perspective" (Yates and Orlikowski 1992, p. 318) has been utilized as a means of analysis in industry (e.g., Spinuzzi 2003), in the academy (e.g., Ylönen 2001), in different areas of cultural production (e.g., Berger 1992), and of course, in the study of literature and film (e.g., Altman 1982; Altman 1999).

Much of the power of genre as a concept is derived from the way that it configures communicative processes or acts. As genre theorists emphasize, the term "genre" designates a "fusion" or an "intersection" of a number of dimensions or aspects of communicative practices and situations: "a genre is not any one thing," Kwaśnik and Crowston assert, "but rather an intersection of several phenomena in a context of use" (2005, p. 76). These intersecting phenomena include not only form, style and purpose, but also content, audience, as well as the issue of "social acceptance:" "A genre is a genre," Kwaśnik and Crowston explain, only "to the extent that it is recognized as such within a given community. In fact," these authors continue, "successful membership in any number of social contexts requires a fluency in the genres in use in that context" (Kwaśnik and Crowston 2005; 77). Effective membership in a blogging community, as one example, requires fluency not only in the content or issues with which the community is overtly concerned (e.g., politics, gardening, e-learning), but also in the form and purpose of blog postings, RSS feeds, blogrolls, and other features or genre types associated with blogging. These issues of fluency, recognition and familiarity further imply that the combination of form, purpose and content in a particular genre is not simply a matter of pure function or



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efficiency, but that it is very much a matter of convention, tradition, or—as one source puts it—of "comfort:" "Genres are a comfort zone of a patterned sign system that both an audience and an industry can read with relative ease" (Burnett and Marshall 2003, pp. 90–91). Other genre researchers make a similar point when they emphasize the importance of the uniform and recurrent nature of genre: "Genres are typified communicative actions characterized by similar substance and form and taken in response to recurrent situations" (Yates and Orlikowski 1992, pp. 299).

An example of how genres "typify" communication in recurrent situations is provided by the genre of the personal homepage on the Web: It has been said to have arisen as a means of addressing the recurrent situation or need to provide "personalized information...that is self-selected and maintained, and viewable by anyone with a web browser" (Dillon and Gushrowski 2000, p. 203). As such, studies of the form and content of the personal homepage genre show that it is characterized by elements of form and content such as the email address of the person it introduces, tables of contents, and welcome messages (Dillon and Gushrowski 2000, p. 203). The personal homepage, then, is arguably "the first uniquely digital genre" (Dillon and Gushrowski 2000, p. 205), arising on the Web in response to the recurrent situation or need to provide a kind of online *carte de visite* or to cultivate a virtual Web "presence."

The post as genre 97

The Internet and the Web also present many other examples of genre as defined by form, content, function, audience and expectation. These digital contexts also provide examples of the modification and multiplication of generic forms. Many of these changing and proliferating forms have their origins in the world of ink and paper, but have been reproduced and re-interpreted in the digital, networked and hypertextual realm. "Digital genres," as Dillon and Gushrowski explain, "borrow heavily from the paper world even though [digital and networked] media optimally support different forms, structures and interactions" (Dillon and Gushrowski 2000, p. 202). Despite the functional differences separating paper and online media, innumerable forms and forums for communication on the Internet and the Web take their name, format and other characteristics from their counterparts offline. Web pages, discussion posts and Web-log (blog) entries, for example, all make meaningful reference to genres in the print or even pre-print era. The Internet or "bulletin board" posting or post, for example, originally derives from to the literal hitching posts used by early express delivery services to swap horses (Wagner 2004, p. 154). And like these "posts" of bygone eras, postings in Internet discussion forums and other online contexts are characterized by forms of identification (e.g. "addresses" of various kinds) and salutations whose basic patterns have remained remarkably consistent over decades and even centuries. The Internet and Web provide some of the most illustrative examples of how genres maintain aspects of continuity as conditions change around them, but also, how genres change over long periods of time and how generic forms have a tendency to proliferate. Older, more familiar and wide-ranging "meta-genres" readily give rise to new and derivative forms or "sub-genres." Starting as a "log" with chronological "entries," the "meta-genre" of the web log, for example, can be seen as giving rise to a variety of subtypes such as the audio blog, the video blog or vlog, the photoblog, the legal blog sometimes cleverly referred to as a "blawg" (Wikipedia 2008). Similarly, the familiar form of the letter has also served as a meta-genre in the world of print, pen, and paper. It has given rise not only to a range of epistolary "forms" (e.g. business, love letters and even postcards), but also serving as the basis for the "epistolary novel," a sub-genre of the novel constituted by an exchange of letters between two or more characters.



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The term "posting" or "post" has been defined as "a message displayed on a mailing list, newsgroup, or other online forum to which it has been sent. Also: the action of sending such a message" (OED 2007). In terms of the practice of CSCL, the genre of the "posting" has played an obvious and important role. Although many software designs and more advanced CSCL technologies have augmented this genre or attempted to replace it with synchronous or multimedial technologies, the "post" arguably remains an important form in communicative practice in many educational environments. It appears in a wide variety of contexts in online education, including emails between individual participants, mailing lists (or LISTSERVs), threaded discussion environments, and more recently, in communication taking place on blogs and wikis. In each of these contexts, it is likely that aspects of the form, content and function of the "posting" as a genre will vary, perhaps resulting in what might be called different "sub-genres" of the Internet post (e.g., the blog post versus postings to an email list). Of course, this variability would only increase when different educational circumstances are taken into account: Where students have not had previous contact, for example, the initial role of the posting might be much more explicitly social than it would be otherwise. This variability, and the possibility of new and different sub-genres emerging in different communicative and pedagogical contexts remains an open question that cannot be considered in the confines of this article. Instead, the article focuses on the notion of the Internet "post" as it has been developed and utilized (but only infrequently thematized) in the context of previous CSCL research.

In this particular context, research relevant to the Internet post often takes the form of investigations of online "communities of inquiry" (e.g., Garrison et al. 2000), or of "environments" specifically designed for "knowledge building" (e.g., Scardamalia and Bereiter 2003), to name but two examples. Much of this research proceeds from argument or assumption that the educational value of online communication can be understood principally in terms its technical capabilities and affordances of the systems that enable it. The fact that the technology of the Internet posting affords communication that is both written and asynchronous is thus seen as paramount. These technical characteristics, for example, are said to encourage "higher-order cognitive learning" as well as "discipline and rigour in... thinking and communicating" (Garrison et al. 2000, p. 90). Genre and the histories and categorizations that it brings with it, however, tell a different story of the posting in CSCL. This story is one where factors such as familiarity, history, culture and tradition play a role that is at least as important as a medium's technical design and capabilities.

History of the post genre

As mentioned above, the letter represents a kind of "metagenre" that encompasses a multiplicity of epistolary sub-genres such as the love letter, the business letter, the "Dear John" letter, or letters of reference, acknowledgement, invitation, and so on. As a well-established and well-developed category or "typification," the letter exemplifies a familiar or recognizable fusion of form and content that is characteristic of genres generally. In their examination of the letter as a paper-based precursor to a range of digital genres, Kwaśnik and Crowston explain:

From studying non-digital genres we know that the role of content and form inform each other. For example, if we are presented with only the empty framework of the format of a letter (heading, salutation, body, and closing) most people can identify the genre. Similarly, if we are presented with the content without the form—just the text—we can still recognize it as a letter. (Kwaśnik and Crowston 2005, p. 78)



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This recognizability extends also to the genre of the email message, as well as to the online posting. The posting in its contemporary form and meaning evolved out of changes in written commercial communication over the course of some 120 years—from the middle of the nineteenth century to the development of the Internet in the 1960s and 1970s. In an extensive historical analysis of this evolution, Yates and Orlikowski point to the development of the online posting or email as starting with the formal business letter. Although this kind of letter already presents elements corresponding to those familiar in email (e.g. "addresses" and a "signature"), Yates and Orlikowski also emphasize the role of an intermediate stage or genre in this evolution. This is the business memorandum or "memo." The memo, they explain, introduces the more "direct but noncolloquial" language that is taken for granted in much online communication today. The memo also includes the regularized "To, From, Subject, and Date fields" that are also a familiar part of the digital genre of the online message or post. Yates and Orlikowski identify further similarities. They point out that, like the paper memo before them, many "electronic mail messages are used to document internal (organizational) events or outcomes for future reference, often with subject matter restricted to a single topic" as indicated in the message's subject line (Yates and Orlikowski 1992, p. 316).

The first appearance of these forms in the memo, Yates and Orlikowski further explain, was not simply due to a desire for uniformity, simplicity and brevity. Instead, the development of memo as a genre—and by extension, of the email or posting as a genre, too—was the result of a range of factors. These include the growth in the size of commercial organizations in the late nineteenth and early twentieth centuries, and the spread of new management philosophies that placed a premium on the kinds of internal communication that were suited to the memo form. These factors also included the introduction of the technologies of the vertical file and the typewriter, requiring more regimented formatting, as well as the introduction of secretarial staff, as experts in the operation of these technologies (Yates and Orlikowski 1992, pp. 311–318). The derivative but familiar forms of the email or online discussion posting, in other words, stand at the intersection of a range of historical developments, technological innovations and practical requirements, with no one of these factors—not even the seemingly unconstrained possibilities offered by the new technological medium of the Internet—single-handedly predetermining its form and function.

Methodology 205

Characteristics of "epistolarity"

The epistolary novel, which flourished in Europe during the eighteenth and nineteenth centuries, presents a narrative through letters and other documents exchanged between its characters. In her book-length study, *Epistolarity*; *Approaches to a Form*, Janet Altman presents a study of the form and dynamics of the epistolary novel. In doing so, she develops a manifold definition of the characteristics of epistolary communication generally. It is this definition that is summarized here, and that serves as the basis for the content analysis that is to follow. Altman uses the term "epistolarity" to designate the form and dynamic of the exchange of letters or postings—or what she refers to as "the use of the letter's formal properties to create meaning" (Altman 1982, p. 4). This creation of meaning, however, does not occur simply or directly. Altman characterizes epistolarity as being above all "charged with paradox and contradiction. The opposite of almost any important trait" she explains, can be as "characteristic of the letter form" as the original trait itself (Altman 1982, p. 186).



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Although Altman refers to "form" and "formal properties" in defining epistolarity, it is important to note that the six paradoxical traits that she identifies—like the concept of genre itself—represent an inextricable mixture of form and content, appearance and substance. Of these traits, four (presented below in highly abbreviated form) are of special importance for this study:

- The letter serves "as a bridge/barrier (distance breaker/distance maker)" (Altman 1982, p. 186). It both connects the writer and addressee(s) across distance, and serves to remind them of their separation. It underscores the fact that they each occupy a different "present," both temporally and spatially.
- 2. The letter is expressive of a dynamic between the opposites of "I/you, here/there, now/ then. Letter narrative depends on reciprocality of writer-addressee and is charged with present-consciousness in both the temporal and the spatial sense" (Altman 1982, p. 186).
- 3. The letter is also caught between the opposites of "[c]losure/overture [and] discontinuation/continuation of writing. The dynamics of letter narrative involves a movement between two poles: the potential finality of the letter's sign-off and the open-endedness of the letter...as a segment within a chain of dialogue" (Altman 1982, p. 186). As only one link in a longer chain of communication, a letter is something that is a fragment in a larger whole, yet, it is also a "discrete unit" in and of itself.
- 4. "Unit/unity; continuity/discontinuity; coherence/fragmentation. The letter's duality as a self-contained artistic unity and as a unit within a larger configuration make it an apt instrument for fragmentary, elliptical writing and juxtaposition of contrasting discrete units" (Altman 1982; 186–187). An epistolary exchange of thoughts and feelings is generally a continuous process that takes place with some regularity over an extended period of time, but also, it necessarily involves interruption and discontinuity.

Before showing how these four characteristics can be identified in online postings in CSCL contexts, it is first useful to illustrate the nature and utility of these paradoxical traits through an example from the epistolary tradition proper. Consider this short quote from a letter penned in 1842 by the Victorian-era poet Elizabeth Barrett Browning:

If I do not empty my heart out with a great splash on the paper, every time I have a letter from you, & speak my gladness & thankfulness, it is lest I shd. weary you of thanksgivings! (Barrett Browning, as quoted in Milne 2003)

In this single sentence, aspects of the letter as bridge/barrier, its simultaneous potential for continuity and discontinuity, and its "present-consciousness" for both correspondents are all manifest: The writer is obviously glad to receive the letter, but worries of tiring her correspondent with her own reply. Additionally, the letter constructs or evokes a present for the glad but concerned writer and also for the possibly weary recipient. Underlying all of these dynamics is the obvious tension between continuity and potential discontinuity in the communication. (Barrett Browning's observation of her situation "every time I have a letter" refers to an event that of course occurs only occasionally, but with some evident regularity).

At first glance, it may seem that this missive from Elizabeth Barrett Browning is too personal and emotional to have any kind of counterpart in the online educational posting, a form derivative of the "direct but noncolloquial" language of the business memo. Consider, however, this example from a North American graduate-level online course in the humanities:

Thank you, Jacques, and thank you again. I see you share my frustration with wondering where that darn post went after you pressed "Send"! (Ruth, Week nine, student-moderated conference) (quoted in Rourke 2005, p. 139)



The form and rhetoric of the online posting

Most if not all of the aspects of epistolarity identified in Elizabeth Barrett Browning's letter are also evident here: the message is a bridge of sympathy and shared frustration, confirming the similarity of experience between two correspondents. The two brief sentences constituting the message attempt to unite the "here and now" of the writer with the recipient, implying the presence of both at the keyboard, each wondering about the status of a posting after having sent it. Also, the technological uncertainty on the part of the composer and recipient also points to the tension between continuity/discontinuity and coherence/fragmentation as was the case in Barrett-Browning's communication. The paradoxical characteristics or dynamics of the letter genre, in other words, can be seen to form relationships of continuity that span different ages and continents, and that render passionate Victorian-era letter comparable with a more casual posting in a CSCL context.

Content analysis

"Content analysis," as "the systematic observation of elements in print, electronic, cinematic, and other media" is generally undertaken by first defining and then "coding" these elements and then counting "the frequency with which each of these elements appear" (Traudt 2005, p. 22). The definition, significance and interrelationship of a set of such content elements is generally provided by an "analytic construct" (Krippendorf 1980) or a "coding frame" or "scheme" (List 2008). In CSCL research, these coding frames are frequently structured in terms of particular stages of collaborative learning, phases of critical thinking, or steps involved in knowledge construction. In this way, different content elements are ascribed significance in terms of particular cognitive, problem-solving, epistemological or knowledge-construction processes (e.g., Meyer 2004; Beers et al 2007; Weinberger and Fischer 2005). For example, in a series of frequently cited studies, Garrison, Anderson and Archer identify four stages of what they call "practical inquiry:" "triggering, exploration, integration and resolution" (2000, p. 89). The authors present these stages as a coding frame by associating each with a number of content elements: "Triggering" corresponds to the appearance of questions or the raising of new topics; "exploration" is associated with the unsystematic introduction of opinions, narratives or ideas; "integration" is indicated by the appearance of tentative hypotheses or generalizations; and "resolution" is linked with the testing and defence of these same hypotheses or propositions (Garrison et al. 2000, p. 89). The formulation, testing and defence of conclusions, of course, are absolutely crucial to critical inquiry. These processes are naturally undertaken through the judicious exercise of reason and logic, as exemplified in formal, syllogistic and deductive methods.

The "analytic construct" or "frame" that is constituted by the four fundamental elements of critical inquiry—triggering, exploration, integration and resolution—is referred to as "cognitive presence" (Garrison et al. 2000, p. 89). As such, this construct is just one part of a larger, more general set of theoretical constructions provided by Garrison and his collaborators to constitute what they refer to as a model of the community of inquiry. In addition to "cognitive presence," this model also includes "social presence" and "teacher presence" constructs as well (Garrison et al. 2000, p. 89).

In the same way that these four stages of "practical inquiry" can be used as a basis for defining a coding frame for "cognitive presence" in online discussions, the four paradoxical characteristics enumerated as a part of "epistolarity" by Altman, above, can act as a coding frame for the epistolary genre. In keeping with the broadly cultural and literary nature of this "generic" enquiry, this coding frame defines content elements in

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terms of the use of rhetorical figures or tropes: words or a phrase used in a preset or figurative way. The table below lists characteristics of epistolarity, the corresponding rhetorical elements, and a specific example to show how these appear in an online discussion context (Table 1).

This coding frame, it should be noted, is not intended to represent a direct competitor to the growing number of frameworks of critical inquiry or knowledge building that have been developed and utilized by CSCL researchers. It therefore does *not* provide a basis for what has is referred to as "interaction" or "discourse analysis" in the context of CSCL research. It is presented here without any pretentions to methodological sophistication or epistemological significance that may be associated with these discursive analytic approaches. It does not seek to operationalize theories of knowledge construction; nor does it attempt to account for the intersecting dimensions of social, cognitive and instructional significance that may be a part of learning in online communication. Its purpose is much less ambitious: to operate as a heuristic technique, working entirely in subordination to methods of genre analysis, and specifically to highlight continuities that link both the form and content of the genre of the online posting with its generic precursors.

It is also important to note that in this coding frame, as defined above, the precise meaning or emphasis of the rhetorical devices have been adapted slightly from their conventional, analytic meanings to better suit the communicative situation presented by online discussion. For example, in the case of the first characteristic (bridge/barrier; distance breaker/distance maker), appeals to the reader in the form of salutations or appellations (i.e. calling by name) is narrowed in meaning: it refers not so much to *any* possible reader, but rather specifically to the principle recipient of a given reply ("Marge" in

Table 1 Epistolarity as a coding scheme

"Epistolarity" characteristic	Rhetorical element	Example (modified from data set)	
Bridge/barrier; distance breaker/distance maker	Forms of appeal to reader or addressee: <i>Salutation</i> : word or phrase of greeting. <i>Apostrophe</i> : the rhetorical address of the absent addressee (i.e. references to "you").	I'm glad to read, <i>Marge</i> , that <i>you</i> were able to integrate student needs in that way. I hope <i>you continue to</i>	
	<i>Imperative</i> : command/entreaty to addressee.		
I/you, here/there now/ then reciprocality of consciousness	The reading/writing present: Events or states of affairs that are concurrent with the reading or writing of the message.	I'm <i>glad to read</i> , Marge, that you were able to integrate student needs in that way. <i>I hope</i> you continue to	
Closure/overture; discontinuation/ continuation of writing	<i>Prolepsis</i> : reference to a future development (flashforward).	I'm glad to read, Marge, that you were able to integrate student needs in that	
	Analepsis: reference to a past development, specifically as described in a previous posting (flashback).	way. I hope you continue to	
Unit/unity; continuity/ discontinuity; coherence/ fragmentation	Ellipsis: The omission of words important to the meaning of a sentence; especially the use of indexical pronouns (e.g. this, that, it) across postings.	I'm glad to read, Marge, that you were able to integrate student needs <i>in that way</i> . I hope you continue	



The form and rhetoric of the online posting

the examples provided above). The notion of the narrative or discursive present (corresponding to the message being "charged with present-consciousness" both temporally and spatially) is also understood in a fairly narrow sense, as referring literally to events coinciding with reading and writing a message (e.g., the reader being "glad to read" a message and simultaneously "hoping" the best for a correspondent). "Prolepsis," in turn, is understood as a student's or participant's reference to developments and states of affairs in the future; and "analepsis" refers rather specifically to the contents of earlier messages (i.e. states of affairs arising in the past as described in messages; or events, such as postings, occurring within the discussion forum itself). Finally, ellipsis (generally defined as the omission of words in a sentence) is understood here as a kind of "reference through omission." It refers to the exclusion of terms or explanations whose meaning is already made clear in previous messages. The term "indexical" is used to qualify this rhetorical element. "Indexical" refers to the use of terms that acquire their meaning by "pointing" to some state of affairs, through the use of pronouns like "this" or "that." It simultaneously underscores the self-sufficiency of epistolarity of postings (indexical pronouns are generally used in a manner that is grammatically or syntactically correct within the confines of the message) and their contextual dependence (these same pronouns function semantically only with the context provided by previous messages).

The precise character and function of these tropes or rhetorical figures is further illustrated in the examples provided just below (Table 2).

As these examples show, rhetorical figures defined as emblematic of epistolarity are not entirely unambiguous. Especially salutation and apostrophe tend to occur in very close proximity, and can be interpreted as either separate or overlapping. At the same time, these examples show that the appearance of other kinds rhetorical figures can be fairly readily differentiated. Verbs in the present tense (corresponding with the "reciprocality of consciousness"), indexical pronouns referring to content of other messages (corresponding to "continuity/discontinuity"), and analeptic/proleptic references to previous messages (corresponding broadly with "closure/overture") allow for fairly easy identification and discrimination.

Data source and coding procedure

The "epistolary" coding frame described above was operationalized in the context of a case study: Like many studies in CSCL research, it is limited to a single group in a real-life educational context, with the intention of gaining an in-depth understanding of the communicative, "generic" phenomenon in question. However, in terms of scale, this

Table 2 Examples showing epistolary tropes in online discussion postings		
Example quoted in Rourke 2005, p. 139 (cited above)	Example from data set analyzed	t2.2
Thank you [salutation], Jacques [apostrophe], and thank you again [salutation/apostrophe]. I see [verb referring to present] you share [verb referring to present] my frustration with wondering where that [ellipsis/indexical pronoun] darn post went after you pressed "Send"! [analepsis]	Hi Joan [salutation/apostrophe], I agree [verb referring to the present] that it [ellipsis] probably is not the most efficient way of adopting new technologies, but the results can be much richer! I like [verb referring to the present] that [ellipsis/indexical pronoun]-out of confusion comes learning [analepsis; quotation from previous posting]	t2.3

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research is further limited. Many case studies in CSCL research will analyze the communicative data generated over a number of weeks, months, and often over an entire semester, and implement measures in the interests of intra-coder and inter-coder reliability. In keeping with its preliminary character as a pilot study, the data set or corpus used here is considerably smaller, and was not subjected to checks of coder reliability. It was derived from a transcript of 136 postings containing approximately 11,000 words (excluding email address, message titles, etc.). These messages were generated by a group of 13 students and an instructor or moderator engaged in the final week of a 13-week graduate-level education course delivered entirely at a distance.

Also, like any case study, this research is also limited by the particular nature of the educational context from which its data is derived. As mentioned above, it seems likely that generic characteristics would vary from case to case, according to the experience and the guidance available to students, and to the nature of the communicative technology utilized. In the case of the course under investigation here, all of the students were experienced users of basic CSCL or online discussion forum technologies. Similarly, the instructor was an experienced distance educator who had been using online discussion forums in similar distance courses for more than five years. The software utilized (WWWboard) provided a technically rudimentary Web-based threaded discussion environment. These and the other limitations of this study should give rise to caution in generalizing its results to communicative practices and dynamics in other contexts, educational and otherwise.

Results 391

Counts produced through this preliminary analysis are as follows: (Table 3)

The totals in the table above have a number of important implications. They suggest, in short, that the dynamics of epistolary communication are *indeed* relevant to online discussions in educational contexts. These results provide evidence confirming that the epistolary coding frame defined above *does* describe some aspects of communication in CSCL contexts. As a specific example, the fact that rhetorical figures of "prolepsis" and "analepsis" appeared 77 times in a corpus of 136 messages (an average of more than once in every two messages) suggests that the corresponding characteristic of traditional epistolary communication—closure/overture, or the discontinuation/continuation of writing—*is* relevant to communication in online collaborative learning. This means that although "epistolarity" was originally devised for the literary analysis of epistolary novels, it shows promise as an analytic frame and method for inquiry into online discussions. In still other words, "the use of the letter's formal properties to create meaning" can be used as a basis for understanding the way both the form and the content of online postings, too, enable the

Table 3 Totals for epistolary tropes or rhetorical elements

Rhetorical element (epistolarity characteristic)	Salutation, apostrophe (distance breaker/ maker)	Imperatives, references to the present (reciprocality of awareness)	Prolepsis, analepsis ([dis] continuation of writing)	Ellipsis, indexical pronouns (coherence/ fragmentation)	t3.2
Totals	49	86	77	28	t3.3
Percentage (total=240)	20%	36%	32%	12%	t3.4



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creation of meaning among students and between students and teachers. As Altman herself understands it, the form and content of letters or postings function "as a connector" between two individuals or parties (1987; p. 13), working now as in previous centuries to underscore mutuality of thought and feeling and "the reciprocality of writer [and] addressee" (1987; p. 187).

With this in mind, the analysis conducted above can be profitably compared to other research in online discussion in education. As one interpretation, it is possible to use this "epistolary" approach to affirm and buttress the "community of inquiry" model presented earlier. The social nature of epistolarity that Altman emphasizes suggests that the coding frame provided above could be operationalized to measure what Garrison and his co-authors have referred to as social presence—or what others have identified as the "social mode" in text-based, online communication (Weinberger and Fischer 2005): This refers to "the ability of participants in a community of inquiry to project themselves socially and emotionally through the medium of communication being used" (Garrison et al 2000, p. 94). The identifiable frequency of the elements of epistolarity can serve as a way of determining the degree to which participants are indeed able to "project themselves socially and emotionally" in their written communication. It should be noted, however, that while Garrison and others see this kind of interaction as valuable in support of critical thinking tasks, they do not recognize it as particularly important in and of itself. They see little value, for example, in more-or-less monological narratives that are "not used as evidence to support a conclusion" (p. 18; emphasis added) and they characterize this kind of activity rather uncharitably, as "undirected, unreflective, random exchanges and dumps of opinions" (Garrison et al. 2001, p. 21).

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Relevance to related research

It is also possible interpret the results of this study as grounds for a reassessment of many of the assumptions underlying the work of Garrison and others. The premise for this reassessment is fairly simple: The results produced in Garrison, Anderson and Archer's original study—and those produced subsequently in similar studies—do not readily conform to what is predicted by their theoretical model. These results show that what is occurring in online discussion or CSCL contexts is not adequately explained in terms of

At the same time, it is also important to note one way in which thiseir application of "epistolarity" has departed or diverged from the examples provided in history and specifically in the analyses of Altman herself. This divergence is underscored by Altman's aforementioned description of the characteristics of epistolarity as "charged with paradox and contradiction," with any one trait invoking its opposite (e.g., the letter as a "distance maker" also functioning as a "distance breaker"). What the analyses above indicate, however, is that only one side of paradoxically-charged characteristics such as "distance maker/distance breaker" or "continuity/discontinuity" is generally evident. The example adapted from the transcript and provided in table one, above, is indicative of this: "I'm glad to read, Marge, that you were able to integrate student needs in that way. I hope you continue to...." The characteristics of epistolarity are clearly evident here in their positive sense - acting as a bridge between writer and addressee, establishing continuity and connection between messages-but not so much in the more negative sense of emphasizing discontinuity between postings or the distance separating reader and writer. The example of epistolary communication from Rourke cited earlier suggests a reason for this: when Ruth thanks her classmate Jacques and exclaims that they share the same frustration - in wondering what happens after pressing "Send'!"-the "distance breaking" and "discontinuity" that is evident arises from uncertainty over technical issues, which become less pressing as technology and ways of utilizing it become more familiar and established.



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"critical inquiry" or "knowledge building." The results of Garrison's original study, for example, did *not* show students moving from the cognitive acts of triggering and exploration to those of integration and resolution. Instead, 75% of the messages coded in this early study were categorized as being either "exploratory" in character or as "other"—as not fitting in with *any* of the four stages of practical inquiry (Garrison et al. 2000). Other research based on this same model of communal inquiry, and using the same coding scheme, has produced similar results. One relatively large-scale study by Fahy, for example, examined a total of 462 postings generated over an entire semester, and classified 331 of these (72%) as "exploratory" (Fahy 2005). Comparable results are also found in research that uses slightly different coding schemes for defining productive online discourse. In fact, results broadly comparable to those of Fahy and Garrison and his colleagues have been produced with remarkable consistency, as reported by Rourke and Kanuka:

Two decades of observation indicate that students rarely engage in the communicative processes that comprise critical discourse, and in the rare cases when they do they do not achieve the purported outcomes....[Many] researchers have looked closely at the types and patterns of interaction among graduate students engaged in computer conferencing. The percentage of messages in which students engage in critical discourse, mutual critique, or argumentation, in whatever way it might be operationalized, ranges from 5 to 22%. (Rourke and Kanuka 2007, p. 106)

Student activity in online forums, when interpreted in terms of critical inquiry, is generally shown as getting "stuck" at the preliminary stages of this inquiry. Instead of progressing to higher levels or stages of cognitive or critical activity, the exchanges enacted by students are judged through this model as being incomplete. On their own, these exchanges are seen in this theoretical frame as being of little educational value. "Students," as Rourke and Kanuka (2007) conclude, do not "orient to the conference as a forum for critical discourse" (p. 105).

How, then, do students "orient" to these kinds of CSCL contexts? Even though a body of research shows that the majority of students' communication involves the unsystematic exchange or exploration of opinions, narratives or ideas, related research indicates that these kinds of exchange are considered valuable by both students and teachers (e.g., Wise et al. 2004; Varnhagen et al. 2005). In the particular data set studied above, for example, students are referring to one another very directly and individually, are discussing matters raised in each others' messages, and are relating their messages to shared events in the past and to stated possibilities for the future. They are constantly working to bridge the "gap" between reading and writing in the here and now, and reading and writing in the past and in the likely future. Together, these kinds of activity suggest that a theoretical frame for CSCL that is cognizant of epistolarity and the letter genre would be of value. Such a theoretical understanding would emphasize that in addition to factors such as technical affordances and pedagogical guidance, broader issues such as history and culture can also be significant in how students orient themselves in these forums.

The addition of culture and history—as these are embedded in generic forms—to the list of factors frequently emphasized in research into CSCL systems is a point that bears some emphasis. The technical characteristics of these systems, their textual and asynchronous operation, for example, should not alone be seen to lead students to cautious composition of logically interrelated postings or content. Students do not encounter an online interface or a blank text box in terms of their raw technological potential, as purely rational beings without history or culture. Instead, students bring to such contexts their own complex histories of immersion in educational systems, technologies and cultures (both digital and



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otherwise), and these shape students' interpretation of and engagement with a given set of technological affordances. In the recurrent situation of an ongoing class discussion, in other words, there is evidence to suggest that it is cultural, conventional and generic elements that play a role in orienting students' individual and collective communicative acts and expectations. These historical and cultural factors, and the expectations and predilections that they bring with them, represent a "human factor" that is at least as important as more conventional design factors of usability and ergonomics. And these historical and cultural factors also need to be accounted for in theories of student use of technologically-mediated contexts.

CSCL and genre theory

Genre, as mentioned earlier, provides a kind of familiar and stable "comfort zone" that an audience is able to take up with "relative ease" (Burnett and Marshall 2003, pp. 90–91). As indicated above, this emphasis on continuity, familiarity and stability is an important part of the "genre perspective" generally. Instead of looking to isolated factors such as specific technological functions or capabilities, the genre perspective, as Yates and Orlikowski explain, makes it possible to consider the processes of the "mutual shaping" of any one genre with a range of associated factors and practices:

The genre perspective does not attempt to understand [communicative] practice as an isolated act or outcome, but as communicative action that is situated in a stream of social practices which shape and are shaped by it. (Yates and Orlikowski 1992, p. 318)

The genre perspective focuses on structures and continuities that are "situated in a stream of social practices" and factors. In this way, this perspective is able to highlight commonalities that tie together communicative practices together over the decades and centuries, and to bring attention to many larger trends and perspectives, rather understanding a communication medium in terms of its technological or functional characteristics or novelty.

It is possible to take this line of thinking one step further by referring to an expanded definition of genre. Genre as an analytical category has been applied not only to works of film, literature and standardized forms of written communication. It has also been used as a way of understanding a very wide range of formal and informal modes of speaking, writing and even acting-ways that copy, combine and adapt existing forms of communication and action. "Genres" in this expanded sense of the word range from a party invitation to a casual greeting, from a university lecture to a shopping list, or (of special significance here) from the narration of a personal anecdote to the formulation of a logical syllogism. Sylvia Scribner, a social psychologist who studied syllogistic reasoning in both literate and orallybased cultures, refers to "narrative genres" and "logical genres" in her famous essay, "Modes of thinking and ways of speaking: Culture and logic reconsidered" (Scribner 1997). She reports on field research that shows that persons belonging to oral cultures were generally unable to engage in syllogistic reasoning (e.g., producing or understanding sentences such as: "All persons are mortal; Socrates is a person; Socrates is mortal."). But Scribner also discovered that these same individuals were easily able to engage in other typified communicative actions, such as the formulation of complex narratives. Scribner reasoned that this inability to reproduce syllogistic constructions does not arise from any cognitive or cultural "deficit," or an overall incapacity to reason "logically." Instead, she attributed it to a lack of familiarity with syllogisms as typified communicative acts and with formalized logical reasoning as a genre. "The narrative, like the formal [logical] problem,"



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Scribner concludes, "may be considered a socially evolved genre that individuals in varying degrees, depending on their own personal life experiences, acquire or...internalize" (Scribner 1997, p. 142).

This is a type of "meaning," significantly, that is very different from the meaning created through abstract, universal principles of syllogistic or critical reasoning. Narrative meaning is rather different, in other words, from the exercise of reason and logic as it might be applied in the development and testing of generalizations and hypotheses envisioned in models of critical online inquiry. The example of the syllogism provided above ("All persons are mortal; Socrates is a person; Socrates is mortal."), exemplifies the timeless, placeless, abstract quality of this logical, rule-based reasoning: It speaks of all persons being mortal as a general "law," and uses logical operations independent of time and situation to apply this law to a rather arbitrary individual case. Narrative, on the other hand, has arguably much more in common—both historically and formally—with the social reciprocity and mutuality of "epistolarity." It is perhaps little wonder, then, that the forerunner of the posting—the epistolary or letter form—has been used as a means of structuring novel-length narratives, and that the dynamics of these narrative accounts, in turn, can provide insights into written exchanges in CSCL and other contexts.

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