

Computer-Mediated Conversation: Introduction and Overview

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This two-part special issue of *Language@Internet* is devoted to the theme of “Computer-Mediated Conversation,” with a focus on textual exchanges carried out via email, instant messaging, real-time chat protocols, asynchronous discussion forums, Web pages, and the like. Although the word ‘conversation’ invokes the spoken word, and voice communication such as Skype and other forms of Voice-over-Internet Protocol (VoIP) transmission have gained in popularity in recent years, text-based computer-mediated communication (CMC) enjoys historical precedence, and it remains more popular than VoIP. The first email was transmitted between networked computers in 1972 (Hafner & Lyon, 1996). Restricted originally to users in the military, government, universities, and businesses, textual CMC exploded in popularity after Internet Service Providers enabled people to go online from their homes in the late 1980s and early 1990s. The mid-to-late 1990s was a “golden age” for CMC, including public, multiparticipant textual interactions, which flourished on electronic mailing lists, Usenet newsgroups, MUDs and MOOs, and Internet Relay Chat.¹ More recently popular CMC modes—such as text messaging on mobile phones, instant messaging, weblogs, and wikis—are also textual, and textual interactions continue to be important even on cutting-edge convergent multimedia platforms such as media sharing and social network sites (Herring, 2004, 2009). Thus typed exchanges have been, and continue to be, the most typical (and, as I suggest below, interesting from a theoretical perspective) kind of computer-mediated ‘conversations.’

Another reason for the collection’s focus is that it was originally conceived, and many of the articles were first written, in the mid-to-late 1990s,² when VoIP communication was rare, and text-based CMC reigned virtually unchallenged on the Internet. While it might seem taken for granted now, at that time a claim—even an implicit one, such as the title of this collection makes—that text-based CMC was ‘conversation’ was somewhat controversial. The view of many scholars was that, at best, ‘conversation’ could be a metaphor for CMC, but not a literal description of it, since it was not produced orally or received auditorily like speech, and conversation was, by definition, spoken and heard. Some conversation analysts in the ethnomethodological tradition went so far as to reject CMC as a legitimate object of study in the early days, although by the late 1990s they had changed their view.³ Thus my intention from the outset in putting together the collection was to probe the notion of CMC as conversation—to ask in what ways it is (or is not) conversation-like, and whether it is useful (or perhaps even detrimental) to so conceive of it. These questions remain relevant today, as the uses and study of CMC—both textual and vocal—have grown.

There is much *prima facie* implicit evidence that text-based CMC is conversation-like. In casual parlance, Internet users often refer to textual exchanges as conversations, using verbs such as ‘talked,’ ‘said,’ and ‘heard’ rather than ‘typed,’ ‘wrote,’ or ‘read’ to

describe their CMC activities. Even published authors sometimes refer, unconsciously, it seems, to ‘speakers’ rather than online ‘writers’, ‘talk’ rather than ‘typed exchanges’,⁴ ‘turns’ rather than ‘messages,’ and so forth, when reporting on CMC. This linguistic usage attests to the fact that users experience CMC in fundamentally similar ways to spoken conversation, despite CMC being produced and received by written means.

Furthermore, a number of scholars have explicitly compared CMC to speech and conversation.⁵ Early on, Horowitz and Samuels (1987) characterized CMC as “speech writ down,” Maynor (1994) as “written speech,” and Colomb and Simutis (1996) as “visible conversation;” to this we may add Cherny’s (1999) characterization of chat on a social MOO as “conversation;” Sack’s (2000) characterization of Usenet newsgroups and discussion forums as “very large-scale conversations” and Scoble and Israel’s (2006) description of weblog content as “naked conversations.” With the exception of Cherny’s, all these characterizations were made about asynchronous CMC, which is usually situated by scholars (e.g., Herring, 2001; cf. Collot & Belmore, 1996; Yates, 1996) closer to the written end of the written-spoken continuum than synchronous CMC modes such as chat, which tend to exhibit more ‘oral’ features (e.g., Ko, 1996; Werry, 1996). The usual explanation for this is that asynchronous CMC allows the communicator more time to edit messages before sending them, like traditional writing, whereas chat exchanges (and other short messages, such as text messaging from mobile phones) are more likely to be composed and sent on the fly, like turns in spoken conversation. Asynchronous modes, then, are especially interesting to study, for if even asynchronous CMC is shown to be conversational, that constitutes evidence for the conversationality of text-based CMC overall. This, in turn, could have theoretical and practical consequences (this point is taken up further below).

Asynchronous CMC modes are the focus of nine articles in this special issue, which is comprised of 14 original research studies; three articles focus exclusively on synchronous modes, and two others analyze modes of both types. Most of the authors conclude that their data are meaningfully conversation-like, regardless of synchronicity, whether it be with regard to the employment of “oral” discourse strategies, the management of interaction, gender and power dynamics, code choice, or processes of accommodation. At the same time, all identify specifics of CMC technologies and cultures of use that render computer-mediated conversations different from spoken conversation. One of the most striking examples concerns turn-taking. It has long been observed that normal face-to-face (F2F) patterns of turn-taking are disrupted in CMC systems that transmit messages as wholes without moment-by-moment feedback, resulting in disrupted turn adjacency and overlapping exchanges (Garcia & Jacobs, 1998; Herring, 1999). However, even in systems where transmission is character-by-character, more closely approximating that of spoken exchanges, turn-taking patterns systematically violate the ‘no-gap, no overlap’ principle posited by Sacks, Schegloff, and Jefferson (1974) for spoken conversation, as the study of the VAX ‘phone’ system by Anderson, Beard, and Walther in Part I of this special issue illustrates. The reason is that communicators’ access to a persistent textual record of the interaction enables a different strategy of discourse processing, one that is in fact more efficient than the one-turn-at-a-time model.

Thus one goal of this collection is to bring together theoretically informed and methodologically rigorous research focusing on conversational aspects of CMC, where ‘conversational’ is defined broadly to include not just orality but the interactive and social dimensions associated with face-to-face communicative exchanges. No assumptions are made *a priori* that any one mode of CMC is inherently more conversational than any other; rather the intent is to interrogate and explore the conversational nature of each. A second goal is to illustrate the application of linguistic—and specifically, discourse analytic—approaches to the study of CMC. At the time this collection was first conceived, as yet little research had been published from linguistic or discourse perspectives; this journal, *Language@Internet*, was not born until 2004. Fortunately, it is no longer necessary (one hopes) to persuade readers of the merit of applying language-focused methods of analysis to CMC. Nonetheless, systematic consideration of what it means for CMC to be ‘conversational’ is still lacking, even almost 15 years after the first call for papers for this collection went out.

The age of many of the studies can be seen as a limitation (the literature reviews, for example, are not always up to date), but in other ways it is a strength. The collection includes studies that analyze data collected during the first “golden age” of text-based CMC, when norms of interaction were still emerging and the forces that shaped them were visible in ways they no longer are today. Some analyze phenomena, such as nonstandard typography (Cho) and code-switching (Georgakopoulou; Paolillo), that raised the question of the conversationality of CMC in the first place. These analyses still provide new insight, even if more recent research has addressed related issues. Others analyze phenomena about which little or no subsequent research exists, such as turn-taking in a character-by-character transmission system (Anderson et al.), intertextuality in agonistic debate (Hodsdon-Champeon), the evolution of a private language variety (Rowe), and analysis of 3-D multimodal discourse (Naper); nor has the subject matter of my own piece on gender differences in floor types (Herring) been taken up in subsequent research. Other topics, such as ‘quoting’ parts of a previous message in a response (Severinson-Eklundh) and differences in turn construction in synchronous and asynchronous CMC (Condon & Čech), have since become part of the CMC research canon, yet the studies in this special issue on those topics still rank among the most rigorous ever published, in my view. Similarly, while socialization into the norms of online groups has often been observed to occur, Weber’s case study of an online support group for sexual abuse survivors constitutes a paradigm example of the phenomenon, and Lambiase’s study of topic decay on a national disaster-focused discussion list is the only study (to my knowledge) to combine topic development with a power- and gender-based critique. That the findings of these studies continue to be relevant attests to their originality, on the one hand, and their ability to hold their value, on the other. The remaining contributions focus on more recent CMC modes, bringing a conversational perspective to bear on instant messaging (IM) exchanges (Baron) and addressee-addressor relations in weblogs (Peterson).

The contents of this special issue are organized into two parts. The eight articles in Part I are concerned with three sets of issues: Language Structure (Cho; Baron), Interaction Management (Severinson-Eklundh; Condon & Čech; Anderson et al.), and

Conversational Conflict and Control (Herring; Lambiase; Hodsdon-Champeon). The six articles in Part II cover issues of Discourse and Identity (especially as reflected in language choice: Georgakopoulou; Paolillo), Socialization and Change (Weber; Rowe), and Multimodal Discourse (Naper; Peterson)—the last broadly construed to include weblogs. The organization is intended to flow from more micro-level (structure, turn-taking) to more macro-level (identity, socialization) phenomena, although the final two articles, on multimodal discourse in a virtual world and the conversationality of blogs, are grouped together more for convenience than because they share a coherent approach.

Taken as a whole, the collection shows that despite being produced by traditionally written (i.e., typed) means, interactive text-based CMC, including both synchronous and asynchronous and both dyadic and multiparticipant modes, shares numerous characteristics with (informal) spoken conversation—e.g., typographic practices that imitate spoken prosody; discourse produced in chunks that resemble ‘intonation units’ (cf. Chafe, 1987); turn-taking; topic development via step-wise moves (cf. Sacks, 1972/1992); ‘conversational’ code-switching (cf. Gumperz, 1982)—and moreover, that CMC fulfills many of the same social functions as spoken conversation. This has implications for the characterization of ‘conversation’ itself. In earlier research, Chafe (1982) added ‘integration’ and ‘involvement’ as dimensions to the classification of spoken and written language; conversation, as a genre of speech, tends to be more involved, although integrated conversation, as in a formal debate, may also occur. Biber (1988) challenged the binary characterization of speech and writing altogether, replacing it with a continuum characterized by multiple dimensions. Thus conversational (spoken) genres could be situated at different points along various dimensions such as ‘interactive vs. edited,’ ‘abstract vs. situated content,’ and ‘reported vs. immediate style.’ The findings of the studies in the present collection go further by suggesting that conversation need not be restricted to the spoken modality. Rather, it can be broadly defined as any exchange of messages between two or more participants, where the messages that follow bear at least minimal relevance to those that preceded or are otherwise intended as responses.⁶ Within this broad definition, genres of conversation may be situated along various dimensions, determined not only by features of the communicative medium that shape discourse production, but also by the topic, setting, and purpose of the communication (Herring, 2007; cf. Hymes, 1974). This applies to traditional spoken conversational genres (e.g., F2F conversations, telephone conversations, interviews, debates), as well as interactive CMC modes such as IM exchanges, multiparticipant chat, email, asynchronous discussion forums, and, of course, VoIP.

In contrast, the article by Peterson on weblogs (blogs) concludes that blogs as a whole are not meaningfully conversational. Peterson argues that while many blogs appear to address their readers directly using conversational conventions, the mere use of such conventions does not make them conversations.⁷ This argument is consistent with the broad definition of conversation proposed in the previous paragraph: Conversation requires response from an interlocutor. It follows (although Peterson does not address this explicitly) that blogs that receive responses (e.g., in comments posted to blog entries) can be considered conversations, albeit asymmetrical ones in which the blog author controls the floor (Herring, Kouper, et al., 2005; Herring, Scheidt, Bonus, & Wright, 2005).⁸

While not prototypical of conversation, asymmetrical floor control is also characteristic of some spoken genres, such as interviews. Thus the case of blogs makes an important point, namely, that while a CMC mode as a whole may or may not generally be conversational, the possibility for exceptions exists; notably, less conversational modes (such as blogs and wikis, as well as media-sharing sites such as YouTube⁹ may be employed conversationally by users.

Another overall finding of the studies in this issue is the myriad ways human users adapt to the constraints (and affordances) of CMC systems in order to converse. From using conversational conventions of address, to chunking text to maintain a conversational pace, to ‘quoting’ to recreate conversational context, to modified turn-taking to optimize temporal resources, to use of private messaging as a ‘back channel’ in group discussion, to struggling to gain and maintain the conversational floor, and to expressing frustration when messages digress off-topic, there is much evidence to suggest that CMC users orient to conversational norms. This attests simultaneously to the adaptability of human communicators (cf. Hård af Segerstad, 2002) and the robustness of conversation as a basic mode of communication with others.

Interestingly, the word conversation used to mean simply ‘to have dealings with others;’ the sense of ‘talk’ did not enter until the early 1500s.¹⁰ The broadened conceptualization of ‘conversation’ proposed above to include CMC resonates in some ways with the earlier meaning. Although Gutenberg invented the printing press in the 1440s, printed works were not yet common, and literacy was not widespread, in early 16th century England; spoken “dealings” were the only kind most people knew. Writing subsequently gained in popularity, especially among the educated upper classes, but it was not until the Internet caused CMC to become massively widespread at the end of the 20th century that many people came to carry out their day-to-day dealings with others via written text (cf. Baron, 2000). Thus it can be argued that the definition of ‘conversation’ has always depended to some extent on the available communication technologies, and that technological change is presently driving an expansion of its meaning.

Some of the practical consequences of these findings are already being realized. People are already using CMC in place of spoken exchanges. Indeed, textual CMC has become a prime site for conversation, supplementing F2F and telephone for personal, professional, and commercial interactions. The question arises whether this trend might lead eventually to the demise (or co-optation, e.g., via virtual reality and internet telephony) of the latter two conversation modes; whether in the future all conversation will be mediated. According to the title of an article published in *USA Today* (Jayson, 2010, December 30)—“2010: The year technology replaced talking”¹¹—that future is already here. However, while the findings in the present collection might appear to provide evidence of a trend towards replacement, other research reports that spoken (especially, F2F) communication still tends to be preferred for purposes ranging from socializing with friends (Livingstone & Bovill, 2001) to education (Hara & Kling, 2000) and library reference interactions (Ford, 2002). Moreover, it has been found that people who spend more time socializing via CMC also have more offline social interactions (Baym, Zhang, & Lin, 2004), although obviously there is an upper limit determined by the number of

hours in a day that a person can spend communicating, and the preferred use of one medium can (and sometimes does) detract from time spent using another. Overall, it appears that a shift is taking place from older to newer conversational media, but no evidence exists to suggest that F2F conversation is in danger of being totally supplanted. Indeed, if for no other reason than that it is learned by children before writing or typing, spoken conversation will likely remain primary for the foreseeable future.

The present collection has a number of limitations, at the same time that it suggests fruitful directions for future work. One limitation is that most of the studies are of English CMC (exceptions are Georgakopoulou's study of Greek and English code-mixing in email; Paolillo's analysis of code switching between Hindi/Panjabi and English on Usenet and IRC; and Naper's analysis of chat in a Norwegian 3D virtual world). Studies focusing on computer-mediated conversation in other languages and cultural contexts are needed (cf. the chapters in Danet & Herring, 2007, which although focused on interactive text-based CMC, adopt discourse and sociolinguistic rather than conversational analytic perspectives). The age of some of the data analyzed in the studies is another obvious limitation; more research that examines recent CMC through a conversational lens is needed to trace the historical trends identified here through the present day. This should include examining contemporary discussion forum and chatroom interactions to determine if their conversational properties have changed, in addition to investigating more recently popular modes such as text messaging, social networking sites, and CMC on convergent media platforms (Herring, 2009).

A related limitation is the focus of the collection on textual CMC. Voice conversations have been much studied in offline contexts—including telephone conversations, which are technologically mediated (e.g., Hopper, 1992)—and in some respects their interactional dynamics appear to be reproduced in synchronous VoIP (Jenks & Firth, in press), making them less interesting theoretically than purely textual conversations. However, research into computer-mediated voice conversations is in its infancy; VoIP is sometimes combined with other media, including text chat; and VoIP can be asynchronous, unlike most offline conversation.¹² For these reasons, CMC delivered through channels other than text, including VoIP, calls for systematic examination.

A third limitation is methodological. The methods used to analyze the data in this collection are drawn from conversation analysis, critical discourse analysis, descriptive (structural) linguistics, the ethnography of speaking, interactional sociolinguistics, language variation and change, pragmatics, and semiotics. Other established methods that have been or might fruitfully be applied to computer-mediated conversation are not represented here—for example, social network analysis (cf. Paolillo, 2001); automated analysis of language features (cf. Hancock et al., 2005); and ethnographic analysis (cf. Androutsopoulos, 2008), including the use of video technology to incorporate gestures and physical context into the analysis (cf. Beißwenger, 2008). Studies that address CMC using such methods are needed to expand the study of computer-mediated conversation to larger corpora and situate it within its broader contexts of use.

Finally, only three of the articles directly assess the relative degree of conversationality of different modes or data samples (Cho's comparison of structural linguistic features in email and written memoranda; Condon & Čech's experimental study comparing interaction in speech, synchronous CMC, and asynchronous CMC; and Paolillo's comparison of code switching in Usenet and Internet Relay Chat), and no single set of methods is employed, or questions asked, across the collection that would make the results of the individual studies directly comparable with one another. Additional studies comparing CMC with spoken and/or written genres (cf. Collot & Belmore, 1996; Ko, 1996; Yates, 1996) are always welcome. Especially lacking, however, is systematic comparison across multiple modes of CMC using a common set of methods. Such studies are needed to refine our understanding of what variables—technical and/or situational—shape computer-mediated interactions in ways that make them conversational (or not).

These limitations notwithstanding, this collection is unique to date in exploring the conversationality of text-based CMC, and especially, in providing a historical perspective on its emergence. Regardless of how popular Internet telephony or other modes of VoIP may become in the future, textual interaction seems likely to remain popular, as well. In the short term, it is expanding its uses, as multimedia platforms increasingly provide options, alongside other affordances, for users to leave text comments and/or engage in text chat (Herring, 2009). Overall, the available evidence suggests that when such options are present, people tend to use them to converse with each other. Thus the studies gathered here provide empirical support for what CMC users have known intuitively for a long time: that CMC *is* 'talk' and 'conversation,' and that in this communication technology-rich era, the modality of production and reception is less important than the interaction itself.

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Notes

1. Some of these CMC modes may not be familiar to present-day readers. Usenet is a large bulletin-board-like discussion system, first implemented in 1980, in which asynchronous messages are posted to 'newsgroups'. The Usenet database was acquired by Google in 2001, and it can currently be accessed through 'Google Groups.' Several articles in the present collection analyze conversational aspects of Usenet newsgroup messages (Severinson-Eklundh, Hodsdon-Champeon, Paolillo, Weber). A MUD is a multi-user dungeon (or a multi-user dimension/domain); a MOO is a MUD, object oriented, often described as a text-based multi-user virtual reality environment. The first game MUD was developed in 1979; the first social MUDs in the late 1980s. For detailed analysis of conversation on a social MOO, see Cherny (1999). Internet Relay Chat (IRC) is a large text-based multiparticipant chat system developed in 1988; discussion takes place in 'channels.' IRC data are

analyzed in the article by Paolillo in this collection. (For more on the history of these and other CMC modes, see Herring, 2002.)

2. This collection was inspired by the 1996 International Pragmatics Conference held in Mexico City, the theme of which was “conversation.” I organized two panels on “Computer-mediated conversation” for the conference, and four of the chapters included here—those by Herring, Hodsdon-Champeon, Lambiase, and Paolillo—were first presented in those panels. When I later decided to edit a collection on the panel theme, I gathered additional contributions via a call for papers on the Internet and via invitation. Originally, the collection was to appear as a print book published by Hampton Press; I am indebted to Ronald Rice, editor for the Hampton Press series on New Media: Policy and Social Research Issues, for his earlier review comments on the articles. However, personal health problems caused delays in the publication of the work, and as time went by and the publishing landscape changed to increasingly favor online publication, I decided to publish the collection as a special issue in an online venue. *Language@Internet* was considered ideal for this purpose, in that the journal is dedicated to language-focused analysis of CMC.
3. These observations are anecdotal, based on messages sent to the ETHNO hotline, an academic mailing list on topics related to ethnomethodology and conversation analysis hosted by the Communication Institute for Online Scholarship since 1988. When I started following ETHNO in the mid-1990s, I was surprised to find no mention of CMC as possible data for analysis. I recall one thread in which it was explicitly asserted by some purists that CMC could not be studied using ethnomethodological methods in principle (presumably because of the unavailability of physical contexts in which to situate the communication). This made a strong impression on (and discouraged) me at the time, since I had already put out my call for papers for this collection before learning about the list, and I was hoping for contributions from ethnomethodologists. By 1999, however, calls for papers for conferences were being posted to ETHNO that included CMC as a possible topic, and a year later, the manager of the Ethno/CA News webpage and a regular contributor to the ETHNO hotline, Paul ten Have, published an article about computer-mediated chat (ten Have, 2000). In fact, a number of important ethnomethodological studies of CMC were published in the late 1990s (e.g., Garcia & Jacobs, 1998; Rintel & Pittam, 1997). The present collection includes several articles on interaction management (e.g., Anderson et al.), as well as an article on code-switching (Georgakopoulou), that adopt a conversation analytic approach.
4. Apparently, I am guilty of this myself (see, e.g., Herring, Kutz, Paolillo, & Zelenkauskaitė, 2009).
5. Two exceptions are Baron (2000) and Hård af Segerstad (2002), who take writing as their explicit point of comparison with CMC.
6. In this broader conceptualization, turn-taking need not be strictly one-at-a-time, but responses should logically be produced after initiations (excluding cases in which an interlocutor responds in advance to an anticipated move by another interlocutor).
7. More-or-less coherent conversation *across* blogs has also been reported to occur (e.g., by Efimova & de Moor, 2005), although such reports are uncommon.

8. Gold (1991) advanced a similar argument for answering machine messages, a pre-Internet mode of mediated communication. She observed that people leaving answering machine messages employed “dialogic devices” such as dialogic couplets and special prosodic marking in an attempt “to mitigate the central irony of ‘conversing’ with an absent interlocutor” (p. 251).
9. This tendency underlies what I term ‘convergent media computer-mediated communication’ or CMCMC, defined as (usually text-based) interactive CMC that occurs on convergent media platforms in which it is typically secondary, by design, to other activities, such as media viewing or game playing (Herring, 2009; Herring et al., 2009).
10. Retrieved December 27, 2010 from <http://www.etymonline.com/index.php?term=conversation>.
11. The actual claim of the article is not that talking has ceased to exist, but rather that the ubiquity of technologically-mediated communication such as text messaging and mobile phone voice calls is distracting from, and detracting from the quality of, F2F interactions.
12. Answering machine messages might be considered a counterexample, although such messages are not typically interactive, beyond the caller responding nominally to the prerecorded message of the callee (cf. Gold, 1991). The callee does not normally respond to an answering machine message by recording another message on the same machine. (S/he may leave a response on the caller’s machine, but that is not the preferred response; a real-time voice connection is.)

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