

# Introduction: Sociolinguistics and computer-mediated communication

Jannis Androutsopoulos

*University of Hannover, Germany*

---

This theme issue of *Journal of Sociolinguistics* comprises a number of empirical studies focusing on a range of ways in which people use language in computer-mediated communication (CMC). This introduction contextualizes the contributions to this issue by providing an outline of linguistically focused CMC studies. A critique of the research on the 'language of CMC' is given, and aspects of CMC research from a sociolinguistic viewpoint are presented: the move from the 'language of CMC' to socially situated computer-mediated discourse; its grounding in the notion of online community; and the application of sociolinguistic methodologies to its study. It is argued that CMC provides a new empirical arena for various research traditions in sociolinguistics; conversely, sociolinguistics can contribute to the interdisciplinary theorizing of CMC by demonstrating the role of language use and linguistic variability in the construction of interpersonal relationships and social identities on the Internet.

KEYWORDS: Computer-mediated communication, sociolinguistics

---

## 'WEBSLANG' AND 'NETSPEAK': CHALLENGING NEW LANGUAGE MYTHS

In early 2005 the *Bild*, Germany's most popular tabloid newspaper, launched on its website a series of quizzes dedicated to language use on the Internet. Bearing headings such as 'Do you understand Internet slang?' and 'Do you speak Chattish?' these quizzes consist of a mixture of German and English lexical items, framed by a metalinguistic discourse that constructs the 'language of the Internet' as 'a series of abbreviations and symbols' that pose a 'big problem' to Internet novices. Using labels such as *Internet-Slang*, *Netzslang*, *Webslang*, and *Chattisch* (chat speak), these quizzes present their subject matter as a non-standard register of language; they exoticize this register through qualifications such as *seltsame Sprache* (weird language), *verrückte Mischung* (crazy mixture) or *ein Wirrwarr aus Zahlen und Buchstaben* (a jumble of digits and letters); and they stereotype Internet users with a distinction between 'novices' and 'advanced users', who are offered one quiz each.<sup>1</sup>

Even though Internet use has become mainstream in Germany and most other Western countries, quizzes of this sort, alongside press reports, lay wordlists and

popular dictionaries, sustain what Dürscheid (2004) calls *Mythos Netzsprache* (the netspeak myth), that is popular conceptions of language use on the Internet as being distinct, homogeneous, and indecipherable to 'outsiders' (cf. Thurlow, Lengel and Tomic 2004: 118–128). Paradoxically, perhaps, academic work has done its part in perpetuating Internet language myths, in a manner similar to the 'unintentional reproduction' of stereotypes in language and gender research (Talbot 2003: 473). A prominent case in point is 'netspeak', a term coined by Crystal (2001) and defined as a type of language 'displaying features that are unique to the Internet, [...] arising out of its character as a medium which is electronic, global, and interactive' (Crystal 2001: 18). Variably dubbed a 'language variety' or even a 'new linguistic medium' (Crystal 2001: 239), 'netspeak' is divided into sub-varieties that are related to different communication modes. For instance, the 'language of e-mails' comprises 'functionally distinct elements' that are 'central for the identification of e-mail as a linguistic variety', such as headers, signatures, greetings and responsive quotations, as well as 'more local points of stylistic significance', for instance, spelling variation (Crystal 2001: 94, 122). Likewise, the 'language of chatgroups' focuses on the 'curious mixture of informal letter and essay' that is deemed to be typical of asynchronous messaging, and the 'highly colloquial constructions and non-standard usage' that characterize chat messages (Crystal 2001: 148, 165).

Crystal's approach epitomizes much scholarly work on language use in CMC in the 1990s, in English and other languages.<sup>2</sup> This work, which we might perhaps term the 'first wave' of linguistic CMC studies, has commonly used the distinction between synchronous (e-chat, instant messaging) and asynchronous (mailing lists, newsgroups, discussion boards) modes of digital communication as a pivotal point for linguistic description, often based on small or even anecdotal samples. Its emphasis on medium-specific features of language use is made explicit in labels such as 'electronic language' and 'computer-mediated register' (cf. papers in Herring 1996b and critique in Herring 2004). As a result, we now have a fairly good understanding of the first of three key issues in CMC research identified by Herring (1996a), that is the 'language of CMC': there is a wealth of descriptive accounts of its 'unique features' (Crystal) such as emoticons and acronyms, the hybrid combination of written and spoken features, and principal differences between synchronous and asynchronous modes. At the same time, this work has paid less attention to the socially situated discourses in which these features are embedded. The 'variety of group practices' (Crystal 2001: 155) is customarily noted, but not accounted for in any systematic way, thus inevitably sustaining homogenized and simplified conceptions of language use in CMC. It is empirically questionable whether in fact anything like a 'language of e-mails' exists, simply because the vast diversity of settings and purposes of e-mail use outweigh any common linguistic features (cf. Schmitz 2002). Likewise, new social uses of chat technology – e.g. tutorials, political talk or praying sessions (cf. Campbell 2003) – give rise to discourse patterns that go well beyond what is perceived as a typical 'e-chat style'; for example, new conventions of turn-taking regulation

emerge in educational chat, and 'non-standard usage' is sparse in chat sessions with politicians (see e.g. papers in Beißwenger 2001; Beißwenger, Hoffmann and Storrer 2004). The 'Internet linguistics' approach represented by (but not restricted to) Crystal (2001) actually conceals Herring's (1996a) second and third key research issues, namely the interplay of technological, social, and contextual factors in the shaping of computer-mediated language practices, and the role of linguistic variability in the formation of social interaction and social identities on the Internet.

The contributions to this theme issue extend a growing body of research inspired by sociolinguistics and discourse analysis, which aims at demythologizing the alleged homogeneity and highlighting the social diversity of language use in CMC. Although diverse in its research questions and methods, this work shares a shift of focus from medium-related to user-related patterns of language use, and brings the 'variety of group practices' to the centre of attention. While not denying the impact of technology on language use, it rejects the technological determinism that is implicit in much early work. As a consequence, the search for 'typical' features of 'netspeak' is replaced by 'contextual and particularistic analyses that shed light on how different contextual parameters shape and are evoked in the discourse of various types of CMC' (Georgakopoulou 2003). Rather than identifying e-mail, chat or weblogs as new genres *per se*,<sup>3</sup> the question is how these communications technologies are locally appropriated to enact a variety of discourse genres. Characteristic features of 'the language of CMC' are now understood as resources that particular (groups of) users might draw on in the construction of discourse styles in particular contexts.

The move from the 'language of CMC' to computer-mediated discourse (Herring 2004) has important implications for the theory and methodology of CMC research from a sociolinguistic viewpoint. These include the usefulness of the notion of online/virtual community<sup>4</sup> in theorizing the social context of computer-mediated language practices, and the need to apply sociolinguistic methods in a field that is mainly informed by descriptive linguistic approaches. These issues are addressed in the remainder of this introduction.

## 'COMMUNITY' AND 'IDENTITY' IN CMC STUDIES

Community and identity are notions of marginal importance with much language-focused work on CMC; by contrast, they are central in the theorizing of CMC in media sociology and media studies.<sup>5</sup> However, online or virtual community is not an uncontested term, and researchers have had difficulty finding a generally accepted definition (Liu 1999: 2). Rheingold's early definition of virtual communities as 'social aggregations that emerge from the Net when enough people carry on [...] public discussions long enough, with sufficient human feeling, to form webs of personal relationships in cyberspace' (Rheingold 1993: 5) has been influential for the understanding, but also characteristic for the fluidity and indeterminacy, of the community concept in CMC studies. It

has been critically argued that besides their lack of physical proximity, Internet-based groups lack the stable membership, long-term commitment, and social accountability that would be needed to qualify as communities in the sociological sense (cf. Jones 1995a, 1998; Stegbauer 2001: 71). Others, however, have argued that online communities have to be understood in their own terms as 'communities of some sort', even though their 'social morphology [...] is hard to classify and their longevity difficult to predict' (Appadurai 1996: 195). Or, as Castells puts it, virtual communities 'do not follow the same patterns of communication and interaction as physical communities do. But they are not "unreal", they work in a different plane of reality' (Castells 2000: 389).

Current definitions of online/virtual community in CMC studies range from inclusive versions – for example 'a group of people who interact in a virtual environment' (Preece, Maloney-Krichmar and Abras 2003: 1023) – to the formulation of sets of conditions that have to be satisfied if a group of Internet users is to be termed a community. These include: regular interaction around a shared interest or purpose; the development of social roles, hierarchies and shared norms; a sense of common history; and an awareness of difference from other groups.<sup>6</sup> Baym identifies four types of 'consistent and distinctive language practices' that indicate the emergence of a coherent online community: group-specific vocabulary; forms of non-verbal communication; genres; and humor (Baym 2003: 1016). Online communities emerge as participants 'create and codify group-specific meanings, socially negotiate group-specific identities, form relationships [...] and create norms that serve to organize interaction and to maintain desirable social climates' (Baym 1998: 62). In Herring's framework of computer-mediated discourse analysis (Herring 2004), virtual community is operationalized on six dimensions: (a) active, self-sustaining participation around a core of regular participants; (b) the emergence of roles, rituals, and hierarchies; (c) evidence of shared history, culture, norms and values; (d) self-awareness of the group as an entity that is distinct from other groups; (e) solidarity and support, as evidenced in, for instance, humor, positive politeness, and reciprocity; and (f) criticism, conflict, and the emergence of means of conflict resolution. These, Herring argues, correspond to the main characteristics of online communities as providing sociability, support and identity to their members, and ensure that 'not all online groups constitute virtual communities' (Herring 2004: 346).

CMC studies resonate with various notions of community with currency in sociolinguistic theory. The notion of speech community (cf. Patrick 2001; Rampton 1998) has been evoked to emphasize the fact that online communities are sustained by dense interaction, a shared communicative history and 'a common rule-guided usage' (Höfllich 1997: 507). Imagined community (Anderson 1983) is popular with researchers of Internet and the diaspora (see papers in Karim 2003; Lee and Wong 2003); community of practice (Meyerhoff 2002) is especially evoked with respect to groups that sustain blended on- and offline interaction. It seems that the adequacy of these notions for particular online groups will depend both on their collective patterns of online interaction

and on types of individual engagement. For example, while the administrators of a discussion board might satisfy the conditions for a community of practice as 'a shared, negotiated, and fairly specific enterprise' (Meyerhoff 2002), an imagined community of like-minded individuals might be more suited to the viewpoint of occasional users of the same board.

Discussions of *identity* in CMC studies are dominated by social-psychological approaches, and tend to emphasize the individual freedom granted by anonymity to develop virtual identities, as exemplified by the practice of gender switching (Turkle 1995). Viewed this way, online text is a 'mask' (Danet 1998) that participants put on to assume multiple virtual identities that differ from their 'real-life' identities. Personal homepages have been theorized as reflections of fragmented post-modern identities, which enable the reflexive construction of multiple selves through a *bricolage* of word and image (Chandler 1999; Miller and Arnold 2001). Less attention has been paid to the processes by which people establish member identities in the frame of an online community. Participants have a variety of resources to 'interactively create identifiable personalities for themselves' (Baym 1998: 56), including the choice of screen names and message signatures, use of in-group language, explicit self-disclosure, and the assumption of a particular role within the group (Baym 1998, 2000; Cherny 1999; Donath 1999). Yet, these accounts remain anecdotal, especially with respect to micro-linguistic and interactional details. The discursive construction of social identities on the Net has mainly been addressed with respect to gender (discussed in more detail in the next section), while other aspects of social identity are less well studied (cf. Georgakopoulou 2003; Herring 2004). An approach to 'identities in talk' (Antaki and Widdicombe 1998) seems still largely unexplored in CMC studies (but see Georgakopoulou 2004).

## SOCIOLINGUISTIC ISSUES IN CMC RESEARCH

This theme issue suggests that CMC can be examined by, and provides a new empirical arena for, different research traditions within sociolinguistics. The following discussion positions the contributions to this issue, as well as relevant previous research, against the backdrop of the ethnography of communication, variationist and interactional sociolinguistics, and macro-sociolinguistics with a focus on multilingualism.<sup>7</sup> The aim is not to neatly separate paradigms that are in fact blended in current research, but to examine what sorts of questions might be posed from each viewpoint, and what answers have already been obtained.

### *Online ethnography*

If, as suggested here, a sociolinguistic approach to CMC takes online communities and discourse as its starting point rather than the medium and its modes, ethnography seems an indispensable part of both quantitative and non-quantitative approaches. Much can be learnt in this respect from CMC studies,

which have drawn heavily on ethnography to explore Internet cultures, to reconstruct the formation of online communities from an emic perspective, and to chart the dynamic unfolding of online activities in relation to offline events (e.g. Danet 2001; Döring 2003; Hawisher and Selfe 2000; Hine 2000; Yang 2003). An ethnographic approach is consonant with the shift of perspective from the medium to its users suggested here, because it emphasizes the local and situated character of Internet practices:

For both researchers and participants, a central aspect of understanding the dynamics of mediation is to 'disaggregate' the Internet: not to look at a monolithic medium called 'the Internet', but rather at a range of practices, software and hardware technologies, modes of representation and interaction [...] What we were observing was not so much people's use of 'the Internet', but rather how they assembled various technical possibilities which added up to *their* Internet. (Miller and Slater 2000: 14)

As with the notions of community and identity, there are various versions of Internet ethnography (see for example papers in *Journal of Computer-Mediated Communication*), which we might broadly divide into two groups. The first, represented by Hine (2000), for example, is based on the systematic observation of chosen sites of online discourse, complementing this with direct (mediated or face-to-face) contacts with social actors. Such a discourse-centered ethnography is the method of choice 'to determine empirically whether a group of people interacting online constitutes a community' in Herring's (2004) framework, and has been adopted, often implicitly, by other students of the relationship between language, identity and online social structure as well. As with Baym (2000) and Cherny (1999), researchers may be active members of the community, or they may choose to refrain from participation (e.g. Paolillo 2001; Ziegler 2005). The papers in this issue are all grounded in systematic observation of online discourse, sometimes supplemented by participant interviews (cf. *Androutsopoulos*, this issue). The second approach, exemplified by Miller and Slater (2000), is a blend of on- and offline ethnography, which operates with face-to-face interviews, door-to-door surveys and the observation of Internet use in offline social spaces. Although more resource-demanding, an ethnography that starts from offline communities (rather than their online counterparts) seems appropriate for the study of relationships between on- and offline interaction, which, however, is not represented in the present collection.

### ***Language variation***

Relatively few studies of language use in CMC are based on quantitative methodologies (cf. Yates 1996), and even fewer make an explicit connection to variationism (cf. Paolillo 2001). This is no doubt partly due to the fact that anonymity in CMC 'raises problems for traditional variationist methods which assume that reliable information about participant gender, age, social class, race, geographical location, etc., is available to the researcher' (Herring 2001: 621).

It is perhaps also due to the absence of the main type of linguistic variable in the correlative paradigm, that is, phonetics/phonology. Yet socio-demographic information is accessible to ethnographically informed researchers, to the extent that it is made relevant by participants themselves. Of course, as is often pointed out (e.g. Herring 2004), researchers will have to rely on self-descriptions, unless extensive online ethnography is involved or participants are personally known to the researcher (cf. Georgakopoulou 1997, 2004). Bearing that caveat in mind, participants' gender and age can often be inferred from screen names and member profiles, while participant status (e.g. core versus peripheral users, operators versus normal users, novices versus long-time users) is discernible using formal and/or discourse-analytic criteria. Online communities generally make their 'social profile' explicit in terms of age (e.g. teen chat channels), geographical location (e.g. region-specific chat channels), ethnicity (e.g. diasporic newsgroups) or in combinations of various social categories. These community categorizations may be used as independent variables in contrastive studies, and attending to their nuanced formulation fosters a focus on the co-articulation of social identities in discourse (cf. Androutsopoulos and Georgakopoulou 2003; Eckert 2000; Eckert and McConnell-Ginet 1999; Patrick 2003).<sup>8</sup>

Linguistic features that have been quantified and compared across or within online communities include emoticons, unconventional spellings, representations of spoken language features,<sup>9</sup> regional dialect features, obscenity, and code-switching (cf. Androutsopoulos and Ziegler 2004; Herring 2003; Huffaker and Calvert 2005; Paolillo 2001; Siebenhaar 2005; Witmer and Katzman 1997). Analyses based on these features have demonstrated that language variation online is patterned by age, gender and region. For instance, the representation of spoken language features seems more common among younger users.<sup>10</sup> The frequency of emoticons has been found to correlate with gender, emoticons being more often used by females in Witmer and Katzman (1997), and by teenage males in Huffaker and Calvert (2005); gender is also found to correlate with various aspects of discourse style, as discussed below. User status in Internet Relay Chat (IRC) communities is found to correlate with code-switching, obscenity and spelling variation in *#india*, an ethnic chat channel (Paolillo 2001), and with regional dialect features in *#mannheim*, a German city-chat (Ziegler 2005). Ziegler's findings support an acts of identity view, that is participants who represent an online community by virtue of their privileged status will tend to use more of the features that are indexical to the community's self-proclaimed social identity; Paolillo's social network analysis suggests that the standard or vernacular status of linguistic variables in IRC cannot be established independently of the larger context of IRC culture.

Two papers in this issue take a quantitative approach to language variation in CMC: *Susan C. Herring* and *John C. Paolillo* conduct a multivariate analysis of weblog entries with respect to linguistic features (pronouns, determiners, demonstratives, quantifiers) that were identified as 'male' and 'female' in computer-linguistic studies, and examine their distribution by author gender

and weblog genre. *Beat Siebenhaar* examines the level of dialect usage in Swiss-German chat channels based on the frequency of standard and dialect forms of several lexical and grammatical items. He demonstrates a differential dialect distribution between chat channels that correlates with their self-proclaimed regional or supraregional focus; in addition, the level of dialect usage varies by individual user and by time of day within a particular chat channel. More research along these lines will no doubt shed light on how the social roles and hierarchies within an online community are co-constructed by language variation; moreover, quantitative approaches seem well positioned to establish linguistic correlates of user typologies that are common in market research and public discourse, such as the distinction between frequent ('heavy') and occasional ('light') users.

### *Social interaction*

However, quantitative approaches seem less well positioned to address the often-noted hybrid, *bricolage* or *pastiche* quality of computer-mediated discourse, which has been variably attributed to the wish to enhance interactional context or to the expressive freedom granted by anonymity. In research inspired by conversation analysis and interactional sociolinguistics, linguistic variability (e.g. speech-like features, regionalisms, code-switching and style-shifting) is examined not as an index of macro-social categories, but as a resource for the *in situ* management of self-presentation and interpersonal relationships. Consequently, the main question is 'how, within frameworks of generic assumptions and expectations, speech communities draw upon their linguistic resources in order to maximize the effectiveness and functionality of their communication' (Georgakopoulou 1997: 160).

Interactional features of CMC examined so far include: the establishment of interactional coherence and participation framework (Herring 1999; Marcoccia 2004); conversational politeness, partly from an intercultural perspective (de Oliveira 2003; Herring 2003; Kleinberger Günther 2001; McLaughlin, Osborne and Smith 1995); language play and performance (Danet 2001; Danet, Ruedenberg and Rosenbaum-Tamari 1997); dialect stylization (Ronkin and Karn 1999; Su 2003); and style-shifting and code-switching (Androutsopoulos and Hinnenkamp 2001; Androutsopoulos and Ziegler 2004; Georgakopoulou 1997; Paolillo in press a; Sebba 2003; Siebenhaar 2005). These studies focus on individual or public interaction via e-mail, newsgroups or chat channels, using concepts and categories that were developed for the analysis of face-to-face discourse, such as politeness and contextualization theory, interpersonal alignment, and discourse functions of code-switching. Main analytic issues here are how the management of verbal interaction interrelates with medium constraints, and how code-centered choices (Georgakopoulou 2003) are deployed to compensate limitations of context. This work suggests that interlinguistic and intercultural studies are needed in order to understand the interplay of



transcultural and culturally specific forces in the shaping of social interaction in CMC.

In this issue, *Marisol del-teso-Craviotto* draws on conversation analysis to explore linguistic strategies for the negotiation of sexual desire in Spanish and English dating chats. She identifies play as 'the most important framework of interpretation of most of the utterances where desire is constructed', and reconstructs the linguistic strategies by which play is signalled, such as laughter, language stylization, and humorous appropriations of previous messages. Maintaining a play frame, *del-teso-Craviotto* argues, balances the tension between the expression of private erotic pleasures and the public chat environment. *Beat Siebenhaar* argues that quantitative analysis can pinpoint local occurrences of style-shifting in chat interaction, and serve as a backdrop for their interpretation. *Jannis Androutsopoulos* draws on an interpretive approach to language choice and code-switching to examine how discussants on diasporic web forums alternate between German and home languages (such as Greek, Hindi and Persian) for a variety of interactional purposes, including the negotiation of diasporic identities.

### *Language and social identity in CMC*

Research on the relationship between language and social identity in CMC was pioneered by Herring's work on language and gender (e.g. Herring 1993, 2000, 2003). Herring repeatedly found 'systematic differences in the participation patterns and discourse styles of males and females' (Panyametheekul and Herring 2003: 6). Thus in asynchronous CMC, male users tend to write more and longer messages, and to receive more responses than females; male discourse style is characterized by strong assertions, exclusive *we*, disagreement and less politeness than female style, which is characterized by aligned orientations, support and agreement, inclusive *we* and the expression of personal feelings. In synchronous CMC, males use more violent verbs, profanity and offensive vocabulary than females, who use more emoticons and laughter, as well as neutral and affectuate verbs. The fact that females may receive more responses than males in e-chat is, for Herring, due to their being positioned as objects of sexual desire. Herring's conclusion is that, in sharp contrast to the illusion of egalitarian discourse on the Internet, gender asymmetry and male dominance persist (Herring 2000, 2003; Panyametheekul and Herring 2003).

However, some of Herring's findings are only partly confirmed by other researchers. Huffaker and Calvert (2005) found that 'blogs operated by young males and females are more alike than different' and that male teenage bloggers use more emoticons than females, while the latter 'are not using language that is more passive, accommodating, or cooperative' (Huffaker and Calvert 2005: 19). Researchers informed by 'doing gender' approaches have challenged Herring's assumption that gender is a pre-existing category that influences language use, and call instead for a focus on the performance of gender in virtual interaction (Rodino 1997). Others emphasize the need to contextualize language and

identity research in CMC in technological evolution as well as intergenerational and intercultural differences (de Oliveira 2003; Georgakopoulou 1997, 2004; Huffaker and Calvert 2005).

A number of papers in this issue demonstrate how different conceptualizations of identity in sociolinguistics may be applied to CMC research. *Herring and Paolillo* treat male and female as binary categories and examine linguistic features that have been hypothesized to pattern according to gender. However, their findings suggest that these features are less linked to gender than to genres of weblog writing. An explanation suggested by the authors is that these genres are themselves gendered: the relevant features reflect a genre's requirements rather than the actual gender of its author. These findings problematize the assumption of an unambiguous correlation of linguistic features with macro-social categories irrespectively of the discourse practices web authors engage in. *Del-Teso-Craviotto* and *Androutsopoulos* treat social identities as categories that are performatively constructed in discourse. As *Androutsopoulos* argues, the 'dual identity' of diaspora groups is constantly negotiated in their spaces of online interaction, rather than being reduced to a fixed opposition between majority and minority groups. In these negotiations, code choice and alternation are resources for the construction of an array of social identities that are contiguous to a particular diaspora group and its virtual discursive space.

### ***Multilingualism on the Internet***

A growing body of research examines multilingualism on the Internet as a part of two different trends: the dominance of English as a *lingua franca* of transnational communication, and the representation of linguistic diversity online (Danet and Herring 2003b; UNESCO Institute for Statistics 2005; Wright 2004). It is this strand of CMC research that makes explicit links to globalization theory, and examines the interplay of global and local forces in the development of linguistic diversity on the Internet. More specific topics include: the measurement of linguistic diversity; the potential benefits of Internet use for language maintenance and revitalization; and patterns of language choice in different modes of computer-mediated discourse.

English dominated the Internet landscape of the 1990s in terms of both the native language of estimated users and the language of available websites, but more recent years have witnessed a rapid increase in linguistic diversity, with the majority of users and websites today using a language other than English.<sup>11</sup> However, although the weakening dominance of English is the tenor of recent research, the world's most richly multilingual areas are still on the wrong side of the digital divide (Paolillo in press b; UNESCO Institute for Statistics 2005). The presence of lesser-used languages on the Internet crucially depends on localized software and computer fonts, but their availability in turn depends on the market volume of the respective populations (Maurais 2003; Ouakrime 2001). The impact of technology on the representation of linguistic diversity

is particularly manifest in the romanized transliteration of native scripts that is reported for, among others, Greek, Arabic and Persian (cf. Palfreyman and al Khalil 2003; Tseliga in press). Often diverging from official transliteration systems with innovative correspondences between native and Roman graphs, these vernacular transliterations seem to persist, despite the development of Unicode (cf. Maurais 2003: 17–18), especially in settings of transnational and diasporic contact.

It has been suggested that the Internet may contribute to the maintenance of endangered and minority languages by providing a space for their documentation and literacy promotion (Debski 2004; Ouakrime 2001; Sperlich 2005; Warschauer 2002). The Internet affords small languages an increase in written language domains, and endows them with prestige by demonstrating their compatibility with technology and modern communications media (cf. Warschauer 2002). However, the success of these, often grassroots, initiatives ultimately depends on the active participation of the population concerned, which often lacks the required technology and computer literacy (Ouakrime 2001). Even if these are provided, the use of small and endangered languages does not come automatically, as documented in a case study by Sperlich (2005), in which native speakers of Niuean, an Oceanian language, actually prefer English and limit Niuean to greetings and other forms of phatic communication. Even though 'cyberforums [...] do not seem to bring about the promised assistance for maintaining and reviving the Niuean language', Sperlich concludes, 'even the smallest contribution in Niuean is a positive signal' (Sperlich 2005: 76).

As for language choice, the comparative studies reported in Wright (2004), which investigate language use online by educated speakers in various countries (including Indonesia, Italy, Japan and Ukraine), suggest that to the extent Internet resources become available in the users' own languages, English language use decreases; however, reported language choices vary according to communication mode and web content. Other findings suggest that English is favored as the *lingua franca* of professional communication in multilingual networks (Durham 2003) or even among native speakers (Warschauer, Said and Zohry 2002). A pattern worth noting is the written use of Low or formerly spoken-only varieties, as documented for vernacular Singapore English (Singlish), colloquial Arabic, and Swiss-German dialects (cf. Siebenhaar 2005, this issue; Warschauer 2002; Warschauer, Said and Zohry 2002). It seems that the lack of institutional constraints and the 'triumph of informality' (Pietrini 2001) in vernacular CMC encourages the 'literalization' of varieties that were traditionally confined to spoken discourse. At the same time new quasi-diglossic patterns seem to be emerging, as in the case of Egyptian professionals who prefer English for professional online communication and colloquial Arabic for informal e-mails and chats (Warschauer, Said and Zohry 2002).

*Helen Kelly-Holmes's* study of the linguistic localization of corporate websites represents this strand of research here. Drawing on de Swaan's notion of a 'world language system' (de Swaan 2001), *Kelly-Holmes* examines the languages used

on all localized websites of ten global consumer brands. Her findings suggest that the 'hypercentral' function of English as global *lingua franca* of commercial web communication is challenged both by a small number of 'supercentral' languages (e.g. Spanish) and by a larger number of 'central' languages, especially European ones (e.g. Finnish). Thus, to the extent global brands take into account the importance of local languages in their attempt to 'connect' with consumers more effectively, they in fact support linguistic diversity on the Internet. However, as far as multilingual countries are concerned, these corporate solutions are less an 'objective' reflection of a country's official multilingual status than of the estimated market power of the respective populations.

## CONCLUSION

The contributions to this theme issue are based on studies of CMC in a variety of languages (English, Spanish, German, Swiss German, migrant languages, website localization in several languages). Some papers keep to the focus of sociolinguistic CMC research on verbal interaction on discussion boards and chat channels (cf. *del-Teso-Craviotto; Siebenhaar; Androutsopoulos*), while others examine the edited content of websites and weblogs, which has been generally less explored from a sociolinguistic viewpoint (cf. *Herring and Paolillo; Kelly-Holmes; Androutsopoulos*). All the papers are based on systematic observations of particular arenas of online discourse, which are studied with a focus on gender (*Herring and Paolillo; del-Teso-Craviotto*), dialect–standard variation (*Siebenhaar*), and multilingualism (*Kelly-Holmes; Androutsopoulos*). Taken together, they suggest that the time is ripe for supplementing and eventually replacing the listings of 'prototypical' features that have been popular in mode-centered 'Internet linguistics' by a user and community-centered approach, which is promising for a more complex theorizing of the social and contextual diversity of language use on the Internet. Indeed, these papers might be viewed as a realisation of the 'Internet sociolinguistics' imagined by Crystal as a future research development, one of the aims of which would be to study the 'linguistic idiosyncrasies' which 'newcomers will have to learn if they wish to join in', and 'to determine just how systematic such features are and how many such dialects can be distinguished' (Crystal 2001: 60–61). While the authors in this issue do not claim to 'do Internet sociolinguistics' and would probably not speak of 'Internet dialects', but rather of discourse styles which might draw on regional and/or social dialects, their papers demonstrate the contribution of sociolinguistics to the study of the new forms of communication and community in what Castells (2000) calls the 'network society'.

---

## NOTES

1. Cf.: Andreas Koesler (2005) 'Was ist ein Pixel-Schubser? Kapiere Sie den Internet-Slang?'; Torsten Beeck (2005) 'Großer Internet-Test. Sprechen Sie

“Chattisch”?; Torsten Beeck (2005) “Das Proggi funzt! Kapiieren Sie den Internet-Slang?”. These items were published between January and July 2005 on the *Bild* website. The third one is still available as of March 2006 at [www.bild.t-online.de/BTO/digital/Computer/aktuell/2005/07/internet/netzslang2/arnetzslang2.html](http://www.bild.t-online.de/BTO/digital/Computer/aktuell/2005/07/internet/netzslang2/arnetzslang2.html)

2. Besides publications in English, this paper draws on publications in French (Anis 1999b; Marcoccia 2003, 2004); German (Beißwenger 2001; Beißwenger, Hoffmann and Storrer 2004; Runkehl, Schlobinski and Siever 1998; Siever, Schlobinski and Runkehl 2005; Storrer 2003; Thimm 2000; Ziegler and Dürscheid 2002); and Italian (Burr in press; Fiorentino 2004; Orletti 2004; Paccagnella 2000; Scholz 2003). Similar publications in other languages no doubt exist, and bringing their findings together will be a major task of future scholarship in this area.
3. The equation of CMC modes with genres is evident in paper titles such as ‘E-Mail – eine neue Textsorte’ (‘e-mail – a new text type’; Günther and Wyss 1996).
4. ‘Online’ and ‘virtual’ are often used interchangeably in the literature and will be used so in the following.
5. Cf. papers in: S. Jones (1995b, 1997, 1998); Q. Jones (1997); Smith and Kollock (1999); Preece and Maloney-Krichmar (2005); and Porter (2004). See also several articles in *Journal of Computer-Mediated Communication*.
6. Cf.: Androustopoulos (2003b); Baym (1998, 2000, 2003); Castells (2000: 386); Herring (2004); Q. Jones (1997); Liu (1999); McLaughlin, Osborne and Smith (1995); Porter (2004); and Preece and Maloney-Krichmar (2005).
7. In previous research overviews, Herring (2001) outlines three perspectives of computer-mediated discourse analysis: socially conditioned language variation; social interaction; and social criticism. Georgakopoulou (2003) identifies four areas of CMC studies with a pragmatic and discourse-analytic focus: language use between writing and speaking; play and performance; self-presentation and identity; and formation of online communities.
8. For instance, Androustopoulos’ comparison of two youth-cultural discussion boards demonstrates how differences in youth-cultural orientation and in the amount of offline interaction among their members are reflected in different discourse styles (Androustopoulos 2003a).
9. For example: contractions in English; reductions and cliticizations in German; truncations and the replacement of the *e caduc* by an apostrophe in French (Anis 1999a: 87–88). The range of these forms will differ according to the potential variants offered by the spelling system of a language (Sebba 2003b).
10. Rehm (2002) found homepages by students and university staff to differ in the amount of spoken features and emoticons. The seniors’ newsgroup studied by Thimm and Ehmer (2000) and the hip-hop boards studied by Androustopoulos (2003a) clearly differ in the amount of speech-like features, with the former being much closer to standard written language than the latter.
11. Cf.: Crystal (2001: 216–223); Danet and Herring (2003a); Maurais (2003); UNESCO (2005); Warschauer (2002); Wright (2004). According to figures provided by *Global Reach*, native English speakers amounted to 35.2 percent of the online language populations in September 2004 (source: <http://global-reach.biz/globstats/index.php3>).

## REFERENCES

- Anderson, Benedikt. 1983. *Imagined Communities. Reflections on the Origin and Spread of Nationalism*. London: Verso.
- Androutsopoulos, Jannis. 2003a. Jugendliche Schreibstile in der Netzkommunikation: zwei Gästebücher im Vergleich. In Eva Neuland (ed.) *Jugendsprachen – Spiegel der Zeit*. Frankfurt am Main, Germany: Peter Lang. 307–321.
- Androutsopoulos, Jannis. 2003b. Online-Gemeinschaften und Sprachvariation. Soziolinguistische Perspektiven auf Sprache im Internet. *Zeitschrift für Germanistische Linguistik* 31: 173–197.
- Androutsopoulos, Jannis. In press. Language choice and code-switching in German-based diasporic web forums. To appear in Brenda Danet and Susan C. Herring (eds.) *The Multilingual Internet*. Oxford, U.K.: University Press.
- Androutsopoulos, Jannis and Alexandra Georgakopoulou. 2003. Discourse constructions of youth identities: Introduction. In Jannis Androutsopoulos and Alexandra Georgakopoulou (eds.) *Discourse Constructions of Youth Identities*. Amsterdam, The Netherlands and Philadelphia, Pennsylvania: Benjamins. 1–25.
- Androutsopoulos, Jannis and Volker Hinnenkamp. 2001. Code-Switching in der bilingualen Chat-Kommunikation: ein explorativer Blick auf #hellas und #turks. In Michael Beißwenger (ed.) *Chat-Kommunikation*. Stuttgart, Germany: Ibidem. 367–402.
- Androutsopoulos, Jannis and Evelyn Ziegler. 2004. Exploring language variation on the Internet: Regional speech in a chat community. In Britt-Louise Gunnarsson, Lena Bergström, Gerd Eklund, Staffan Fridell, Lise H. Hansen, Angela Karstadt, Bengt Nordberg, Eva Sundgren and Mats Thelander (eds.) *Language Variation in Europe*. Uppsala, Sweden: Uppsala University Press. 99–111.
- Anis, Jacques. 1999a. Chats et usages graphiques du français. In Jacques Anis (ed.) *Internet, Communication et Langue Française*. Paris: Hermès. 71–90.
- Anis, Jacques (ed.). 1999b. *Internet, Communication et Langue Française*. Paris: Hermès.
- Antaki, Charles and Sue Widdicombe (eds.). 1998. *Identities in Talk*. London: Sage.
- Appadurai, Arjun. 1996. *Modernity at Large. Cultural Dimensions of Globalization*. Minneapolis, Minnesota and London: University of Minnesota Press.
- Baym, Nancy K. 1998. The emergence of on-line community. In Steven Jones (ed.) *CyberSociety 2.0. Revisiting Computer-Mediated Communication and Community*. London: Sage. 35–68.
- Baym, Nancy K. 2000. *Tune In, Log On: Soaps, Fandom, and On-Line Community*. Thousand Oaks, California: Sage.
- Baym, Nancy K. 2003. Communication in online communities. In Karen Christiansen and David Levinson (eds.) *Encyclopedia of Community* (Volume 3). Thousand Oaks, California: Sage. 1015–1017.
- Beißwenger, Michael (ed.). 2001. *Chat-Kommunikation*. Stuttgart, Germany: Ibidem.
- Beißwenger, Michael, Ludger Hoffmann and Angelika Storrer (eds.). 2004. *Internetbasierte Kommunikation*. Special Issue, *Osnabrücker Beiträge zur Sprachtheorie* 68.
- Burr, Elisabeth (ed). In press. *Tradizione & Innovazione. Linguistica e filologia italiana alle soglie di un nuovo millennio*. Firenze, Italy: Franco Cesati.
- Campbell, Heidi. 2003. Religious online communities. In Karen Christiansen and David Levinson (eds.) *Encyclopedia of Community* (Volume 3). Thousand Oaks, California: Sage. 1027–1029.

- Castells, Manuel. 2000. *The Rise of the Network Society* (2nd edition). Oxford, U.K.: Blackwell.
- Chandler, Daniel. 1999. Personal home pages and the construction of identities on the Web. [www.aber.ac.uk/media/Documents/short/webident.html](http://www.aber.ac.uk/media/Documents/short/webident.html)  
Accessed on 23 February 2006.
- Cherny, Lynn. 1999. *Conversation and Community: Chat in a Virtual World*. Stanford, California: CSLI Publications.
- Crystal, David. 2001. *Language and the Internet*. Cambridge, U.K.: Cambridge University Press.
- Danet, Brenda. 1998. Text as mask: Gender, play and performance on the Internet. In Steven Jones (ed.) *CyberSociety 2.0. Revisiting Computer-Mediated Communication and Community*. London: Sage. 129–158.
- Danet, Brenda. 2001. *Cyberpl@y: Communicating Online*. New York: Berg.
- Danet, Brenda and Susan Herring. 2003a. Introduction: The multilingual Internet. *Journal of Computer-Mediated Communication* 9: 1.  
<http://jcmc.indiana.edu/vol9/issue1/intro.html> Accessed 23 February 2006.
- Danet, Brenda and Susan Herring (eds.). 2003b. *The Multilingual Internet*. Special Issue, *Journal of Computer-Mediated Communication* 9: 1.  
<http://jcmc.indiana.edu/vol9/issue1/> Accessed 23 February 2006.
- Danet, Brenda, Lucia Ruedenberg and Yehudit Rosenbaum-Tamari. 1997. 'Hmmm . . . Where's that smoke coming from?' Writing, play and performance on Internet Relay Chat. *Journal of Computer-Mediated Communication* 2: 4.  
<http://jcmc.indiana.edu/vol2/issue4/danet.html> Accessed 23 February 2006.
- de Oliveira, Sandi Michele. 2003. Breaking conversational norms on a Portuguese users' network. Men as adjudicators of politeness? *Journal of Computer-Mediated Communication* 9: 1. <http://jcmc.indiana.edu/vol9/issue1/oliveira.html>  
Accessed 23 February 2006.
- de Swaan, Abram. 2001. *Words of the World: The Global Language System*. Cambridge, U.K.: Polity.
- Debski, Robert. 2004. The Internet in support of community languages: Websites created by Poles living abroad. *Information Technology, Education and Society* 5: 5–20.
- Donath, Judith S. 1999. Identity and deception in the virtual community. In Mark A. Smith and Peter Kollock (eds.) *Communities in Cyberspace*. London and New York: Routledge. 29–59.
- Döring, Nicola. 2003. *Sozialpsychologie des Internet* (2nd edition). Göttingen, Germany: Hogrefe.
- Durham, Mercedes. 2003. Language choice on a Swiss mailing list. *Journal of Computer-Mediated Communication* 9: 1. <http://jcmc.indiana.edu/vol9/issue1/durham.html>  
Accessed 23 February 2006.
- Dürscheid, Christa. 2004. Netzsprache – ein neuer Mythos. In Michael Beißwenger, Ludger Hoffmann and Angelika Storrer (eds.) *Internetbasierte Kommunikation*. Special Issue, *Osnabrücker Beiträge zur Sprachtheorie* 68: 141–157.
- Eckert, Penelope. 2000. *Linguistic Variation as Social Practice*. Oxford, U.K.: Blackwell.
- Eckert, Penelope and Sally McConnell-Ginet. 1999. New generalizations and explanations in language and gender research. *Language in Society* 28: 185–201.
- Florentino, Giuliana. 2004. Scrivere come si parla. Variabilità diamesica e CMC: il case dell' e-mail. *Horizonte* 8: 83–110.
- Georgakopoulou, Alexandra. 1997. Self-presentation and interactional alignments in e-mail discourse: The style- and code-switches of Greek messages. *International Journal of Applied Linguistics* 7: 141–164.

- Georgakopoulou, Alexandra. 2003. Computer-mediated communication. In Jef Verschueren, Jan-Ola Östman, Jan Blommaert and Chris Bulcaen (eds.) *Handbook of Pragmatics* (2001 Installment). Amsterdam, The Netherlands and Philadelphia, Pennsylvania: Benjamins. 1–20.
- Georgakopoulou, Alexandra. 2004. To tell or not to tell? Email stories between on- and off-line interactions. *language@internet* 1: 1–38.  
www.languageatinternet.de/articles/36 Accessed 23 February 2006.
- Günther, Ulla and Eva L. Wyss. 1996. E-mail-Briefe – eine neue Textsorte zwischen Mündlichkeit und Schriftlichkeit. In Ernest Hess-Lüttich, Werner Holly and Ulrich Püschel (eds.) *Textstrukturen im Medienwandel*. Frankfurt am Main, Germany: Lang. 61–86.
- Hawisher, Gail E. and Cynthia L. Selfe (eds.). 2000. *Global Literacies and the World-Wide-Web*. London and New York: Routledge.
- Herring, Susan C. 1993. Gender and democracy in computer-mediated communication. *Electronic Journal of Communication* 3: 1–17.
- Herring, Susan C. 1996a. Introduction. In Susan C. Herring (ed.) *Computer-Mediated Communication*. Amsterdam, The Netherlands and Philadelphia, Pennsylvania: Benjamins. 1–10.
- Herring, Susan C. (ed.). 1996b. *Computer-Mediated Communication*. Amsterdam, The Netherlands and Philadelphia, Pennsylvania: Benjamins.
- Herring, Susan C. 1999. Interactional coherence in CMC. *Journal of Computer-Mediated Communication* 4: 4. <http://jcmc.indiana.edu/vol4/issue4/herring.htm>  
Accessed 23 February 2006.
- Herring, Susan C. 2000. Gender differences in CMC: Findings and implications. *Computer Professionals for Social Responsibility Journal* 18: 1.  
<http://www.cpsr.org/publications/newsletters/issues/2000/Winter2000/herring.html>  
Accessed 23 February 2006.
- Herring, Susan C. 2001. Computer-mediated discourse. In Deborah Schiffrin, Deborah Tannen and Heidi E. Hamilton (eds.) *The Handbook of Discourse Analysis*. Malden, Massachusetts: Blackwell. 612–634.
- Herring, Susan C. 2003. Gender and power in online communication. In Janet Holmes and Miriam Meyerhoff (eds.) *The Handbook of Language and Gender*. Oxford, U.K.: Blackwell. 202–228.
- Herring, Susan C. 2004. Computer-mediated discourse analysis: An approach to researching online communities. In Sasha A. Barab, Rob Kling and James H. Gray (eds.) *Designing for Virtual Communities in the Service of Learning*. Cambridge, U.K. and New York: Cambridge University Press. 338–376.
- Hine, Christine. 2000. *Virtual Ethnography*. London: Sage.
- Höflich, Joachim R. 1997. 'Electronic communities' as social worlds: Toward a sociosemiotic analysis of computer mediated interpersonal communication. In Winfried Nöth (ed.) *Semiotics of the Media*. Berlin and New York: de Gruyter. 507–518.
- Huffaker, David A. and Sandra L. Calvert. 2005. Gender, identity, and language use in teenage blogs. *Journal of Computer-Mediated Communication* 10: 2.  
<http://jcmc.indiana.edu/vol10/issue2/huffaker.html>  
Accessed 23 February 2006.
- Jones, Quentin. 1997. Virtual communities, virtual settlements and cyber-archaeology: A theoretical outline. *Journal of Computer-Mediated Communication* 3: 3. <http://jcmc.indiana.edu/vol3/issue3/jones.html>  
Accessed 23 February 2006.



- Jones, Steven. 1995a. Understanding community in the information age. In Steven Jones (ed.) *CyberSociety: Computer-Mediated Communication and Community*. London: Sage. 10–35.
- Jones, Steven (ed.). 1995b. *CyberSociety: Computer-Mediated Communication and Community*. London: Sage.
- Jones, Steven (ed.). 1997. *Virtual Culture*. London: Sage.
- Jones, Steven (ed.). 1998. *CyberSociety 2.0. Revisiting Computer-Mediated Communication and Community*. London: Sage.
- Karim, Karim H. (ed.). 2003. *The Media of Diaspora. Mapping the Globe*. London: Routledge.
- Kleinberger Günther, Ulla. 2001. Sprachliche Höflichkeit in e-mails. In Heinz-Helmut Lüger (ed.) *Höflichkeitsstile*. Frankfurt am Main, Germany: Peter Lang. 147–164.
- Lee, Rachel C. and Sau-ling Cynthia Wong (eds.). 2003. *Asian America.Net: Ethnicity, Nationalism, and Cyberculture*. New York: Routledge.
- Liu, Geoffrey Z. 1999. Virtual community presence in Internet Relay Chatting. *Journal of Computer-Mediated Communication* 5: 1. <http://jcmc.indiana.edu/vol5/issue1/liu.html> Accessed 23 February 2006.
- Marcoccia, Michel. 2003. Parler politique dans un forum de discussion. *Langage & Société* 104: 9–55.
- Marcoccia, Michel. 2004. On-line polylogue: Conversation structure and participation framework in Internet newsgroups. *Journal of Pragmatics* 36: 115–145.
- Maurais, Jacques. 2003. Towards a new global linguistic order? In Jacques Maurais and Michael A. Morris (eds.) *Languages in a Globalising World*. Cambridge, U.K.: University Press. 13–36.
- McLaughlin, Margret, Kerry K. Osborne and Christine B. Smith. 1995. Standards of conduct on usenet. In Steven Jones (ed.) *CyberSociety: Computer-Mediated Communication and Community*. London: Sage. 90–111.
- Meyerhoff, Miriam. 2002. Community of Practice. In Jack K. Chambers, Peter Trudgill and Natalie Schilling-Estes (eds.) *The Handbook of Language Variation and Change*. Oxford, U.K.: Blackwell. 526–548.
- Miller, Daniel and Don Slater. 2000. *The Internet: An Ethnographic Approach*. Oxford, U.K.: Berg.
- Miller, Hugh and Jill Arnold. 2001. Self in web home pages: Gender, identity and power in cyberspace. In Giuseppe Riva and Carlo Galimberti (eds.) *Towards Cyberpsychology: Mind, Cognition and Society in the Internet Age*. Amsterdam, The Netherlands: IOS Press. 74–93.
- Orletti, Franca (ed.). 2004. *Scrittura e nuovi media*. Rome: Carocci.
- Ouakrime, Mohamed. 2001. Promoting the maintenance of endangered languages through the Internet: The case of Tamazight. In Chris Moseley, Nicholas Ostler and Hassan Ouzzate (eds.) *Endangered Languages and the Media: Proceedings of the Fifth FEL Conference* (Agadir, Morocco, 20–23 September, 2001). Bath, U.K.: Foundation for Endangered Languages. 61–67.
- Paccagnella, Luciano. 2000. *La comunicazione al computer*. Bologna, Italy: Il Mulino.
- Palfreyman, David and Muhamed al Khalil. 2003. 'A funky language for teenz to use': Representing Gulf Arabic in instant messaging. *Journal of Computer-Mediated Communication* 9: 1. <http://jcmc.indiana.edu/vol9/issue1/palfreyman.html> Accessed on 23 February 2006.

- Panyametheekul, Siriporn and Susan C. Herring. 2003. Gender and turn allocation in a Thai chat room. *Journal of Computer-Mediated Communication* 9: 1.  
[http://jcmc.indiana.edu/vol9/issue1/panya\\_herring.html](http://jcmc.indiana.edu/vol9/issue1/panya_herring.html)  
 Accessed on 23 February 2006.
- Paolillo, John C. 2001. Language variation on Internet Relay Chat: A social network approach. *Journal of Sociolinguistics* 5: 180–213.
- Paolillo, John C. In press a. 'Conversational' codeswitching on Usenet and Internet Relay Chat. To appear in Susan C. Herring (ed.) *Computer-Mediated Conversation*. Cresskill, New Jersey: Hampton.
- Paolillo, John C. In press b. How much multilingualism? Language diversity on the Internet. To appear in Brenda Danet and Susan C. Herring (eds.) *The Multilingual Internet*. Oxford, U.K.: University Press.
- Patrick, Peter. 2001. The speech community. In Jack K. Chambers, Peter Trudgill and Natalie Schilling-Estes (eds.) *The Handbook of Language Variation and Change*. Oxford, U.K.: Blackwell. 573–597.
- Patrick, Peter. 2003. Creole, community, identity. *Arbeiten aus Anglistik und Amerikanistik* 28: 249–277.
- Pietrini, Daniela. 2001. «X' 6 :-(?»: Gli sms e il trionfo dell'informalità e della scrittura ludica. *Italianisch* 46: 92–101.
- Porter, Constance Elise. 2004. A typology of virtual communities: A multi-disciplinary foundation of future research. *Journal of Computer-Mediated Communication* 10: 1.  
<http://jcmc.indiana.edu/vol10/issue1/porter.html> Accessed on 23 February 2006.
- Preece, Jenny and Diane Maloney-Krichmar. 2005. Online communities: Design, theory, and practice. *Journal of Computer-Mediated Communication* 10: 4.  
<http://jcmc.indiana.edu/vol10/issue4/preece.html>  
 Accessed on 23 February 2006.
- Preece, Jenny, Diane Maloney-Krichmar and Chadia Abras. 2003. History of online communities. In Karen Christiansen and David Levinson (eds.) *Encyclopedia of Community* (Volume 3). Thousand Oaks, California: Sage. 1023–1027.
- Rampton, Ben. 1998. Speech community. In Jef Verschueren, Jan-Ola Östman, Jan Blommaert and Chris Bulcaen (eds.) *Handbook of Pragmatics* (2003 Installment). Amsterdam, The Netherlands and Philadelphia, Pennsylvania: Benjamins. 1–30.
- Rehm, Georg. 2002. Schriftliche Mündlichkeit in der Sprache des World Wide Web. In Arne Ziegler and Christa Dürscheid (eds.) *Kommunikationsform E-Mail*. Tübingen, Germany: Stauffenburg. 263–308.
- Rheingold, Howard. 1993. *The Virtual Community*. Cambridge, Massachusetts: MIT Press.
- Rodino, Michelle. 1997. Breaking out of binaries: Reconceptualizing gender and its relationship to language in computer-mediated communication. *Journal of Computer-Mediated Communication* 3: 3.  
<http://jcmc.indiana.edu/vol3/issue3/rodino.html>  
 Accessed on 23 February 2006.
- Ronkin, Maggie and Helen E. Karn. 1999. Mock Ebonics: Linguistic racism in parodies of Ebonics on the Internet. *Journal of Sociolinguistics*: 360–380.
- Runkehl, Jens, Peter Schlobinski and Torsten Siever. 1998. *Sprache und Kommunikation im Internet*. Opladen, Germany: Westdeutscher Verlag.
- Schmitz, Ulrich. 2002. E-Mails kommen in die Jahre. Telefonbriefe auf dem Weg zu sprachlicher Normalität. In Arne Ziegler and Christa Dürscheid (eds.) *Kommunikationsform E-Mail*. Tübingen, Germany: Stauffenburg. 33–56.

- Scholz, Arno. 2003. Comunicazione giovanile in rete: una mailing list italiana dedicata alla cultura hip-hop. In Franz Rainer and Achim Stein (eds.) *I nuovi media come strumenti per la ricerca linguistica*. Frankfurt am Main, Germany: Peter Lang. 117–139.
- Sebba, Mark. 2003a. 'Will the real impersonator please stand up?' Language and identity in the Ali G websites. *Arbeiten aus Anglistik and Amerikanistik* 28: 279–304.
- Sebba, Mark. 2003b. Spelling rebellion. In Jannis Androutsopoulos and Alexandra Georgakopoulou (eds.) *Discourse Constructions of Youth Identities*. Amsterdam, The Netherlands and Philadelphia, Pennsylvania: Benjamins. 151–172.
- Siebenhaar, Beat. 2005. Varietätenwahl und Code Switching in Deutschschweizer Chatkanälen. *Networx* 43.  
[www.mediensprache.net/de/websprache/networx/docs/index.asp?id=43](http://www.mediensprache.net/de/websprache/networx/docs/index.asp?id=43)  
 Accessed on 23 February 2006.
- Siever, Torsten, Peter Schlobinski and Jens Runkehl (eds.). 2005. *Websprache.net*. Berlin: de Gruyter.
- Smith, Mark A. and Peter Kollock (eds.). 1999. *Communities in Cyberspace*. London, New York: Routledge.
- Sperlich, Wolfgang B. 2005. Will cyberforums save endangered languages? A Niuean case study. *International Journal of the Sociology of Language* 172: 51–77.
- Stegbauer, Christian. 2001. *Grenzen virtueller Gemeinschaft*. Wiesbaden, Germany: Westdeutscher Verlag.
- Storrer, Angelika (ed.). 2003. *Deutsche Sprache in digitalen Medien*. Special Issue, *Zeitschrift für Germanistische Linguistik* 31(2).
- Su, His-Yao. 2003. The multilingual and multi-orthographic Taiwan-based Internet: Creative uses of writing systems on college-affiliated BBSs. *Journal of Computer-Mediated Communication* 9: 1.  
<http://jcmc.indiana.edu/vol9/issue1/su.html>  
 Accessed on 23 February 2006.
- Talbot, Mary. 2003. Gender stereotypes: Reproduction and challenge. In Janet Holmes and Miriam Meyerhoff (eds.) *The Handbook of Language and Gender*. Oxford, U.K.: Blackwell. 468–486.
- Thimm, Caja (ed.). 2000. *Soziales im Netz. Sprache, Beziehungen und Kommunikationskulturen im Internet*. Opladen/Wiesbaden, Germany: Westdeutscher Verlag.
- Thimm, Caja and Heide Ehmer. 2000. 'Wie im richtigen Leben...': Soziale Identität und sprachliche Kommunikation in einer Newsgroup. In Caja Thimm (ed.) *Soziales im Netz. Sprache, Beziehungen und Kommunikationskulturen im Internet*. Opladen/Wiesbaden, Germany: Westdeutscher Verlag. 220–239.
- Thurlow, Crispin, Laura Lengel and Alice Tomic. 2004. *Computer Mediated Communication. Social Interaction and the Internet*. London: Sage.
- Tseliga, Theodora. In press. 'It's all Greeklish to me!': Linguistic and sociocultural perspectives on Roman-alphabetized Greek in asynchronous CMC. To appear in Brenda Danet and Susan C. Herring (eds.) *The Multilingual Internet*. Oxford, U.K.: University Press.
- Turkle, Sherry. 1995. *Life on the Screen*. New York: Simon & Schuster.
- UNESCO Institute for Statistics (ed.). 2005. *Measuring Linguistic Diversity on the Internet*. Paris: UNESCO.  
<http://unesdoc.unesco.org/ulis/cgi-bin/ulis.pl?catno=142186> Accessed on 16 February 2006.

- Warschauer, Mark. 2002. Languages.com: The Internet and linguistic pluralism. In Ilana Snyder (ed.) *Silicon Literacies*. London and New York: Routledge. 62–74.
- Warschauer, Mark, Ghada R. Said and Ayman Zohry. 2002. Language choice online: Globalization and identity in Egypt. *Journal of Computer-Mediated Communication* 7: 4.  
<http://jcmc.indiana.edu/vol7/issue4/warschauer.html>  
 Accessed on 23 February 2006.
- Witmer, Diane F. and Sandra Lee Katzman. 1997. On-line smiles: Does gender make a difference in the use of graphic accents? *Journal of Computer-Mediated Communication* 2: 4.  
<http://jcmc.indiana.edu/vol2/issue4/witmer1.html>  
 Accessed on 23 February 2006.
- Wright, Sue (ed.). 2004. *Multilingualism on the Internet*. Theme Issue, *International Journal on Multicultural Societies* 6(1). UNESCO Social and Human Sciences. [www.unesco.org/shs/ijms](http://www.unesco.org/shs/ijms) Accessed on 23 February 2006.
- Yang, Guobin. 2003. The Internet and the rise of a transnational Chinese cultural sphere. *Media, Culture & Society* 25: 469–549.
- Yates, Simeon J. 1996. Oral and written linguistic aspects of computer conferencing. In Susan C. Herring (ed.) *Computer-Mediated Communication*. Amsterdam, The Netherlands and Philadelphia, Pennsylvania: Benjamins. 29–46.
- Ziegler, Arne and Christa Dürscheid (eds.). 2002. *Kommunikationsform E-Mail*. Tübingen, Germany: Stauffenburg.
- Ziegler, Evelyn. 2005. Die Bedeutung von Interaktionsstatus und Interaktionsmodus für die Dialekt-Standard-Variation in der Chatkommunikation. In Eckhardt Eggers, Jürgen Erich Schmidt and Dieter Stellmacher (eds.) *Neue Dialekte – moderne Dialektologie*. Stuttgart, Germany: Steiner [ZDL Beihefte]. 719–745.

Address correspondence to:

Jannis Androutsopoulos  
 Universität Hannover  
 Deutsches Seminar  
 Juniorprofessur Medienkommunikation  
 Königsworther Platz 1  
 D-30167 Hannover  
 Germany

[jannis.androutsopoulos@germanistik.uni-hannover.de](mailto:jannis.androutsopoulos@germanistik.uni-hannover.de)