

## **11. CROSSING FRONTIERS: NEW DIRECTIONS IN ONLINE PEDAGOGY AND RESEARCH**

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Research on networked language learning is now entering its second decade. While earlier research tended to focus on the linguistic and affective characteristics of computer-assisted discussion in single classrooms, more recent research has increasingly focused on long-distance collaboration. This type of learning environment is challenging to arrange, because it involves diverse learners who operate with different cultural backgrounds, communicative expectations, and rhetorical frameworks. These features, as well as the fact that the communication takes place both inside and outside of class and on students' own schedules, also pose special research challenges. This chapter summarizes what knowledge has been gained about learning and instruction in long-distance online exchanges, focusing on three key themes: (a) linguistic interaction and development, (b) intercultural awareness and learning, and (c) development of new multiliteracies and their relations to identity. In each area, research has indicated that there is no single effect of using online communication, but rather that processes and results vary widely depending on a range of logistical, pedagogical, and social factors.

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Research on online language learning is now entering its second decade. Early studies on networked computer use for language learning tended to focus on the most quantifiable and easily measured aspects of online communication. For example, a number of studies (e.g., Kern, 1995; Sullivan & Pratt, 1996; Warschauer, 1996a) compared amount of participation in face-to-face and computer-assisted discussion. Other studies attempted to quantify the linguistic features, language functions, and learning resources used in online communication (Chun, 1994; Herring, 1996; Kern, 1995; Ortega, 1997; Warschauer, 1996a). Still others focused on affect and motivational patterns (Beauvois, 1992; Kelm, 1992; Meunier, 1998).

Beginning several years ago, a second wave of online language learning research pushed for greater attention to particular practices of use, described and evaluated in terms of their specific social contexts, what Kern and Warschauer (2000) refer to as a *sociocognitive* turn in research on network-based language

teaching. The studies collected in Warschauer and Kern (2000) attempted to expand the body of online pedagogical research into the areas of *context*, *interaction*, and *multimedia networking*. The focus went beyond the texts of online interaction to the broader contextual dynamics that shaped (and were shaped by) those texts. This required a shift from primarily quantitative research methods to principally qualitative methods that attempted to account for classroom cultures as well as language use.

More recently, this second wave of online language learning has been deepened by a shift in focus from single classrooms to long-distance collaboration projects. This shift accomplishes three things. First, it expands the focus beyond language learning to an emphasis on *culture* (i.e., intercultural competence, cultural learning, cultural literacy). Second, it expands the notion of context beyond the local (often institutional) setting to include broad social discourses. Third, it problematizes the notions of its own inquiry, namely, communication and intercultural competence.

This chapter summarizes the most important studies in this second wave of online language learning research, with a focus on three key themes: (1) linguistic interaction, (2) intercultural learning, and (3) literacy and identity. In each of these three areas, research has indicated that there is no single automatic “effect” of using online communication, but rather that processes and results vary widely depending on a range of logistical, pedagogical, and social factors.

### **Linguistic Interaction**

The nature of interaction and how it impacts linguistic development has been one of the most important areas of research in second language learning (for a review, see Pica, 1994). It has been suggested that computer-mediated communication (CMC) provides an ideal medium for students to benefit from interaction, since the written nature of the discussion allows greater opportunity to attend to and reflect on the form and content of the communication. Yet most of the early research on the linguistic nature of CMC focused on counting or categorizing individual students' comments rather than qualitatively analyzing how and in what ways students actually negotiated meaning with each other. Recent studies have begun to explore the nature of online student interaction by investigating empirically the relationships among particular language outcomes, the online tools used, and the purposes informing those uses.

### Negotiation of Meaning

Drawing on interactionist theories of language acquisition that view negotiation of meaning as an important process in language development, several studies have addressed the question of how best to promote meaning negotiation online. Synchronous interaction has been the predominant choice for this research. In a significant shift in research design from earlier studies that relied mainly on single classroom contexts, over half of the studies reviewed here (Kitade, 2000;

Kötter, 2003; Toyoda & Harrison, 2002; Tudini, 2003) brought native- and target-language speakers together from different geographical locations into real-time chat discussions.

To investigate which kinds of classroom tasks promote meaning negotiation online, Blake (2000) examined the interactions of 50 intermediate L2 Spanish learners using *Remote Technical Assistance*, a synchronous chat program. Pairs of students carried out online jigsaw, information-gap, or decision-making tasks, with the jigsaw tasks ultimately promoting the most negotiations. Although the total number of negotiations comprised only a small fraction of the overall conversational turns, Blake argues that CMC provides a good environment for negotiating meaning. However, Blake found a predominance of *lexical* negotiations and relatively few *syntactic* negotiations, leaving open questions about issues of grammatical development.

In a similar vein, Smith (2003) examined negotiation of meaning among 28 intermediate-level English learners communicating on ChatNet during a series of jigsaw and decision-making tasks “seeded” with new lexical items. Smith found that learners did negotiate for meaning when they encountered new words, and that decision-making tasks supported negotiation more than jigsaw tasks (cf. Blake, 2000). Importantly, Smith extends the commonly referenced face-to-face model of meaning negotiation (Varonis & Gass, 1985) to deal specifically with new constraints in CMC.

Another group of synchronous chat studies looks at meaning negotiation as it relates to linguistic and metalinguistic awareness. Pellettieri (2000) studied the interaction of 10 dyads of English-speaking intermediate adult students of Spanish in *ytalk*, a UNIX software program that supports synchronous network-based communication. She examined task-based real-time computer interaction by analyzing the modifications that learners made in response to negotiation signals as well as to corrective feedback. Using frameworks developed from oral interaction, she showed how computer-mediated interaction provided a useful mechanism for helping learners achieve higher levels of metalinguistic awareness. Kitade (2000) examined how students of Japanese benefited from opportunities to interact with native and nonnative speakers in synchronous communication. She found that learners used strategies such as self-correction and collaboration to exploit the linguistic and interactional features of online chatting.

An advantage of online chatting for promoting linguistic and metalinguistic awareness is the ease with which conversational interactions can be downloaded and studied. In their discourse analysis of chat logs between five students of advanced level Japanese and native speakers, Toyoda and Harrison (2002) made suggestions for how students could examine their chat logs to become attentive to language use. Using the Varonis and Gass (1985) model of meaning negotiation, Toyoda and Harrison categorized 45 triggers of miscommunication into nine categories at the word, sentence, and discourse levels. They found that as students moved from the word level to the discourse level, it was difficult to determine whether successful

negotiation had taken place. They argue that studying chat logs can help students learn to analyze difficult grammatical and syntactical features of the target language, develop communication strategies for coping with the short reaction time of synchronous discussion, and reflect on how particular words can trigger cultural misunderstandings.

Two recent studies have extended the above research designs by examining bilingual interactions in a multiple-user domain object-oriented, or MOO, environment (that is, an Internet environment that permits multiple users to participate simultaneously), (Kötter, 2003; Schwienhorst, 2002). Kötter's primary focus was linguistic and metalinguistic awareness and the exploitation of the bilingual format of tandem learning, a model of peer interaction that emphasizes autonomy and reciprocity (see Brammerts, 1996). He examined how 29 German and American students in a Vassar-Münster project using *MOOssiggang* code-switched and negotiated meaning. Compared to research results in face-to-face contexts, Kötter found several differences in students' communicative choices: no repetitions, few recasts, few comprehension checks, and many more requests for clarification, elaboration, or reformulation of their partners' ideas. Examining the use of the MOO environment to promote learner autonomy, Schwienhorst (2002) reported on learners' repair strategies in a tandem project between students in Germany and Ireland. He examined how students used translation and paraphrase to make conversational repairs and became more autonomous in their regulation of native and nonnative discourse in their chatting.

Tudini (2003) reported on a distance learning study involving nine Italian learners at the University of South Australia and 49 online Italian native speakers to ascertain whether negotiation is a feature of unsupervised open-ended "conversational" chats with native speakers. Using the *Ci sei* chat tool, Tudini found that about 9 percent of the distance learners' turns involved negotiation, a figure that confirms, though at a slightly lower percentage, earlier studies of meaning negotiation. Although in this exploratory stage she did not impose the kinds of task-based assignments common to other studies of CMC (e.g., Blake, 2000; Pellettieri, 2000; Smith, 2003), Tudini suggests a need in distance learning for both open-ended as well as more goal-directed tasks.

Together, these studies suggest that CMC has increasingly complexified and problematized current notions of meaning negotiation. The medium changes communication dynamics so that online meaning negotiation does not correspond in all respects with face-to-face negotiation (Smith, 2003). Further, these communication dynamics are likely to be altered even more as the medium itself changes to include aural and visual resources, and as users of the medium shift from monolingual interactions to bilingual discourse (e.g., Kötter, 2003). Finally, the increasing number of online learner interactions that cross geographical, linguistic, cultural, social, and institutional lines strongly calls for more detailed investigation into what Toyoda and Harrison (2002) characterize as the "discourse" level of negotiation of meaning. As Ware (2003) found in her study on asynchronous interactions between German and American students (described later), the occurrence

of meaning negotiation itself may well necessitate willingness to maintain prolonged engagement in interaction, even in the wake of cultural misunderstandings that can occur at the discourse level.

### Language Outcomes

The above studies leave open the question of how online interaction translates to language use and development in other contexts. Several recent studies attempt to tackle this question head-on, one focusing on oral interaction as the dependent variable (Abrams, 2003), and the others on writing (Davis & Thiede, 2000; Schultz, 2000; Sotillo, 2000).

Abrams (2003) considers both synchronous and asynchronous modes of CMC in her investigation of how characteristics of learners' online language use transfer to their face-to-face oral interaction in a third-semester German course. Students in the synchronous conferencing group produced more language in subsequent face-to-face discussion than did their counterparts in either the asynchronous conferencing group or the control group. However, no statistically significant differences were found across groups in terms of quality of language, as measured by lexical richness, lexical diversity, and syntactic complexity.

Online chatting does not necessarily lead to more complex second language writing either. In her study that ferreted out differences between language use in asynchronous and synchronous modes of interaction, Sotillo (2000) compared the discourse functions and syntactic complexity of 25 ESL students' writing. She found that synchronous discussions elicited conversation that was more similar to face-to-face communication in terms of discourse functions: requests, apologies, complaints, and responses. Asynchronous writing promoted more sustained interactions and greater syntactic complexity.

Other research has attended specifically to the use of asynchronous writing as a pedagogical tool for promoting second language writing development. Schultz (2000) focused on two kinds of linguistic interaction, computer-mediated and oral discussion, as possible modes for peer feedback. Comparing how second language learners made use of peer editing feedback that had been provided in these two forms of discussion, she found a complex interrelationship of students' level, activity, and medium, rather than a simple conclusion of superiority or inferiority for computer-mediated feedback. Davis and Thiede (2000) investigated the nature and degree of language learners' imitation and accommodation of writing styles and found that second language students shifted their style in response to their first language interlocutors.

Researchers examining learning produced through online discourse must grapple with growing concerns about the dynamic between online language use and language use and acquisition in other contexts. There is a need for research that specifically documents how online language use might or might not transfer to other dimensions of language learning, such as oral performance (e.g., Abrams, 2003),

syntactic complexity (e.g., Schultz, 2000), and grammatical development. Also, longitudinal studies are needed that investigate the effects of reported short-term gains on long-term acquisition.

In short, researchers must carefully document the relationships among media choice, language usage, and communicative purpose, but they must also attend to the increasingly blurry line separating linguistic interaction and extralinguistic variables. With the trend toward using online communication as a pedagogical tool, language teachers are likely to link native and nonnative speakers in a growing variety of exchange projects. Studies of linguistic interaction will likely need to account for a host of independent variables: the instructor's role as mediator, facilitator, or teacher; cross-cultural differences in communicative purpose and rhetorical structure; institutional convergence or divergence on defining course goals; and the affective responses of students involved in online language learning projects. In the following section we will see how some of these factors have already begun to be researched.

## **Intercultural Learning**

Intercultural projects take as their goal not only the enhancement of learners' language development but also the enrichment of their cultural and intercultural competence. Of particular importance is learners' capacity to view their own culture(s) in dynamic relation to another group's perspective. Early accounts of online collaborative projects (e.g., Cononelos & Oliva, 1993; Cummins & Sayers, 1995; Warschauer, 1995, 1996b) emphasized their potential for supporting intercultural understanding as well as language acquisition. Later accounts (e.g., Fischer, 1998; Kern, 2000; Kinginger, Gourves-Hayward, & Simpson, 1999) demonstrated that cross-cultural understanding did not automatically result from online communication. The projects summarized below can be broken into two categories: descriptive reports that focus on the pedagogical apparatus and discourse-analytic studies that explore linguistic and sociocultural dimensions of online intercultural exchange.

### Pedagogy

A number of reports focus on the pedagogical design of intercultural projects, which have grown in sophistication and tend to include multiple components. Meskill and Ranglova (2000) discuss the revamping of the EFL curriculum at the University of Sofia, Bulgaria, using technology to provide students new means of approaching language and culture. Their curriculum is based on contemporary U.S. and British short stories, incorporating the perspectives of TESOL graduate students in the United States who communicated regularly via e-mail with the EFL students. The American students also made tape recordings of selected dialogs and descriptive narratives from the readings, which were used for listening comprehension and to launch discussion in Bulgaria. Questions about language use were researched collaboratively using online concordancing and style-checking programs, leading to a student-generated grammar for future students in the program.

Müller-Hartmann (2000) reported on another literature-based project involving 11th- and 12th-grade high school classes in Germany, the United States and Canada, focusing on how task properties, setting, teacher and learner roles, and the structure of interpersonal exchanges affected students' intercultural learning. He found that the instructional tasks related to the joint reading of literature largely supported students' intercultural competence, positive attitudes, knowledge about one another's cultures, and their interpretive skills and intercultural literacy.

Von der Emde, Schneider, and Köller (2001) describe a pedagogical experience using a MOO for exchanges between third-semester German students at Vassar and English students at the University of Münster, Germany. They focus on students creating their own cultural spaces and identities on the MOO, which was used as a chat room for discussion of texts as well as for collaborative, interdisciplinary research projects. Significantly, their account touches on issues of play and its importance in broadening the range of language use and in building a sense of community among participants.

Gilberte Furstenberg, celebrated for her work in multimedia computer-assisted language learning (CALL) (e.g., Furstenberg & Levet, 1999; Furstenberg, Murray, Malone, & Farman-Farmaian, 1993) has created a Web-based platform for collaborative cross-cultural exploration named *Cultura* (Furstenberg, 2003; Furstenberg, Levet, English, & Maillet, 2001). Although it has been used primarily in French and English at MIT and the Institut National des Télécommunications in France, *Cultura* is designed to be used for other languages and cultures as well. Furstenberg and her colleagues understand culture not as a static phenomenon but as a dynamic process, and they get students to explore this dynamism by going straight to the biggest problems of human communication: a culture's "essentially elusive, abstract, and invisible" aspects. Students attempt to render these aspects concrete and visible through a pedagogical approach that incorporates questionnaires, observation-based hypotheses, analysis of parallel texts (see also Belz, 2002; Kinginger et al., 1999), and discussion of a broad range of other materials. Through the interactive exchange of viewpoints and perspectives, students using *Cultura* are not "receiving culture" but are involved in a reciprocal construction of one another's cultures. The cultural literacy that *Cultura* aims to develop is therefore not transmitted (as in an E. D. Hirsch "list" variety), but rather created and *problematised* through juxtapositions of materials, interpretations, and responses to interpretations.

This marks a key pedagogical change: The teacher shifts out of the "omniscient informant" role and focuses on structuring, juxtaposing, interpreting, and reflecting on intercultural experiences. Learners' understandings are confirmed, questioned, or contradicted in the light of new materials. Technologically, Furstenberg and her colleagues note two key computer features that support their approach: the ability to juxtapose different types of materials on the same screen and the electronic forum environment, allowing students to exchange their respective viewpoints (which can be archived for further analysis).

Although publications related to this project have to date been primarily descriptive, *Cultura* has the potential to be a key project in the sociocultural strand of second language acquisition studies. The fact that student data have been archived back to 1997 and are now being made available means that researchers will have an extremely valuable corpus to study. Furthermore, bilingual search capabilities and tools allowing researchers to look at contributions across multiple exchanges are now being developed for *Cultura*, making the archived data even more useable.

### Analyzing Intercultural Communication

Another group of recent publications analyzes the vicissitudes of intercultural communication. In a series of articles, Belz (2002, 2003; Belz & Müller-Hartmann, 2003) presents findings to date from the German component of the Penn State Telecollaboration Project.<sup>1</sup> The German project involved fourth-semester German students at Penn State and students enrolled in a teacher education proseminar at the Justus-Liebig-Universität in Giessen, Germany. The project goal was to develop students' foreign language competence and intercultural awareness by discussing their interpretations of parallel German and American films and texts on the general theme of "family issues" via e-mail and synchronous chat. Students then created Web sites to portray their multiple perspectives on cross-cultural themes evoked by the texts discussed.

Belz (2002) found that connectivity does not necessarily translate into learning. Whereas the U.S. students tended to perceive improvement in terms of language and culture knowledge, many of their German counterparts did not. Even the American students attributed their cultural learning less to the teacher's goals in the assigned tasks and more to ancillary communicative events that occurred while completing the tasks. Moreover, the Americans sometimes criticized the level of German students' participation (e.g., when developing their Web pages). At the same time, from the German students' point of view, the U.S. students were too reticent with personal information and seemed more interested in completing the project than in discussing the topics. A key feature of Belz's (2002) analysis is interpreting these findings by linking *structure* (e.g., institutional affordances and constraints) and *agency* (e.g., language learning and use) in students' interactions. For example, Belz attributes the Germans' response partly to their limited access to the Internet, which made it difficult for them to write outside of class time. Additional institutional factors that posed challenges to the exchange were grades, accreditation, and academic calendars.

Belz (2003) takes another angle on the exchange, focusing on the interaction of three students (two German and one American) to explore linguistic dimensions of online intercultural competence. Using appraisal theory and epistemic modality to ground her analysis, Belz examines learners' language choices in their electronic correspondence to assess the development of their attitudes toward both self and other. Belz interprets her data to suggest that German interactional style tends to accentuate the information-conveying function of language and notes more negative evaluation in the two Germans' discourse than in the American's. Belz suggests that

learners should retain their “natural” discourse style, but that each side crucially needs to become aware of the existence of culturally dominant patterns and how they may affect their intercultural interactions.

Belz and Müller-Hartmann (2003) provide a third perspective on the project: a candid account of how social, cultural, and institutional affordances and constraints affected their own involvement and communication as teachers. Their account of the tensions involved in collaborating frames differences not as “obstacles to be overcome” but as valuable learning opportunities in intercultural exploration. Their reflections emphasize the need to move beyond reductive accounts of the instructor in online classrooms as a “guide on the side” and stress the importance of the teacher in identifying and explaining culturally contingent patterns of interaction in electronic discourse.

O'Dowd (2003) provides a qualitative analysis of a yearlong e-mail exchange between two classes in Spain and Britain, remarking on the varied success of paired exchanges. Those that did not function well led to a reinforcement of stereotypes and a confirmation of negative attitudes (echoing Belz, 2002). Pairs that worked well tended to invest a lot of time in their messages, and were sure to include some personal, “off-task” messages, to acknowledge their partners’ comments, and to respond to their questions. They also tended to take the sociopragmatic rules of each other's language into account and included questions that encouraged feedback and reflection. O'Dowd found that factors cited as influential in previous studies (e.g., motivation, proficiency level, computer access, and interest in the target culture) were not significant in interviews with the Spanish and English students in his study. Success was tied more to the reactions students received when they explained aspects of their culture to their partner (interest encouraged them to write more, to learn more, and to change their attitudes toward the target culture).

### Interrogation of Communication and Culture

In showing that intercultural understanding does not necessarily emerge from online interaction, Belz's and O'Dowd's studies point to a number of questions: What *kind* of cultural contact is afforded by the technological medium? If the medium itself changes the ways in which communication takes place, what does it mean to be a competent communicator in a *virtual* world? Along with Belz and O'Dowd, a number of scholars have explored these questions, showing that differences in communicative genres, linguistic styles, academic cultures, and socioinstitutional and cultural characteristics can all affect the degree to which cultural understanding can be negotiated.

Kramsch and Thorne (2002) question the assumption that the type of communication students engage in over global networks (which tends to favor phatic contact and positive presentation of self) naturally supports the development of cross-cultural understanding. Reinterpreting a French–American e-mail exchange (Kern, 2000), they argue that it was not linguistic misunderstandings but a clash in cultural frames and communicative genres that hindered students' ability to develop

common ground for cross-cultural understanding. Specifically, what needed to be negotiated “was not only the connotations of words . . . but the stylistic conventions of the genre (formal/informal, edited/unedited, literate/orate), and more importantly the whole discourse system to which that genre belonged” (p. 98). They argue that demands on communicative competence and negotiation may be quite different on the Internet (Blake, 2000; Kötter, 2003; Pellettieri, 2000 explore some of these differences), and they call for a reassessment of what these terms mean in globalized communication.

Thorne (2003) offers further reinterpretation of this exchange, pointing out that although communicative practices are tightly bound to the materiality of their medium, they are not *determined* by the medium but rather negotiated dynamically through “cultures of use” (norms and attributions that evolve out of everyday use of a medium). Moreover, cultures of use surrounding a given Internet communication tool (e.g., e-mail, chat rooms, instant messaging) may differ across social, generational, institutional, and national groups. For example, Thorne found that some of the students in the Penn State Foreign Language Project felt that e-mail was a much less appropriate medium for personal exchange with peers than instant messaging, and that their personal relationships with keypartners improved after switching to instant messaging.

In their case study of two British and two American learners of French who participated in the electronic discussion forum of the French newspaper *Le Monde*, Hanna and de Nooy (2003) reiterate the crucial role of genre in intercultural communication. They demonstrate that the very ease of entering into electronic discussion with native speakers can be deceptive, obfuscating ways in which a genre such as “discussion” may be shaped differently by the cultural values and generic expectations of its habitual participants. Politeness and linguistic accuracy hold little truck in this online community. A willingness to be socialized into its operative discourse rules gets newcomers much further. Hanna and de Nooy’s analysis of native/nonnative interactions shows how genre and culture are used to explain and justify each other, and therefore how essential it is to analyze what would constitute successful participation in any given communication context.

Analyzing a telecollaborative project between university students in Germany and in Texas, Ware (2003) found that in the wake of misunderstandings, students tended to avert joint development of topics and instead to revert to a task-based approach to their assignments (cf. Belz, 2003). Both groups of students participated beyond course expectations in terms of the quantity of writing they produced, but there was a surprising lack of real interpersonal interaction (as marked by response to direct questions, use of second-person pronouns, elaboration, etc.). In a qualitative analysis of student attitudes, she found that time pressures and institutional constraints negatively influenced students’ communicative choices, leading to what she calls “missed communication” (i.e., moments of miscommunication, disengagement, or missed opportunities for intercultural learning). The key significance of Ware’s findings is that missed communication can be *facilitated* by many forms of computer-mediated communication. For example,

the delayed response time and the lack of social consequences for dropping topics in many online contexts allows participants to be less active conversational partners. Expectations about appropriate communication in the online medium may furthermore pose challenges to the development of intercultural competence; the ability to engage in communication at a deep level of intercultural inquiry may be impeded by an online discourse norm that often favors brevity over sustained attention.

Taken together, these studies point to (1) the importance of investigating what *successful participation* means in different contexts (e.g., different CMC contexts, different cross-cultural contexts, different pedagogical contexts); (2) the importance of the *personal* in intercultural projects—that is, learners' sensitivity to one another's cultural identities and communicative styles; and 3) the importance of *teacher involvement* in discerning, explaining, and reflecting upon culturally contingent patterns of interaction with their students.

### **Literacy and Identity**

A third prominent theme in recent research on online L2 learning and interaction is that of literacy development and, in particular, the relationship of literacy to identity. Warschauer (1999; 2000b) explored these topics in his ethnographic multisite case study of four college technology-enhanced language and writing classes. A key finding of his research was how seriously learners took the objective of learning new semiotic skills in online media, rather than, for example, viewing themselves as carrying out computer-assisted language learning (CALL). Warschauer's concept of *electronic literacies* thus arose as an alternative to the concept of CALL when applied to online instruction. Following this line of work, Shetzer and Warschauer (2000; 2001) further developed the concept of electronic literacies and how best to develop them, focusing on issues of communication, construction of knowledge, research, and autonomous learning.

Another key theme of Warschauer's work was that of how identity issues mediate language and literacy practices in online instruction. Drawing on the experiences of multiethnic students in Hawaii (Warschauer, 2000a) and comparing them to online communication practices in Singapore (Warschauer, 2001) and Egypt (Warschauer, El Said, & Zohry, 2002), he demonstrated how the highly flexible, interactive, and multimodal aspects of online communication made it an ideal medium for exploration and expression of identity (Warschauer, 2002).

The theme of literacy and identity has been carried further forward in the ethnographic work of Lam (2000, 2003), who conducted case studies of four Chinese immigrant youth, examining their language use in both school and out-of-school settings. The four immigrants had, to varying degrees, relatively unsuccessful experiences with English at school, experiencing a lack of motivation to engage in English either in the classroom or on the playground. Yet all four gained status as English users online, both through the Web sites they created and through their e-mails or chats with interlocutors, often using new hybrid forms of language that

creatively combined media and/or language forms (e.g., drawing on both Cantonese and English). In doing so, they assimilated to neither a national (e.g., American) or racial-ethnic (e.g., Chinese-American) identity, but instead explored their own pluralistic identities based on affiliation with like-minded individuals and groups, for example, fans of Japanese animation who flocked to the *anime* Web site of one of the youths Lam studied.

With colleagues Kramsch and A'Ness, Lam analyzed and theorized the issues involved in online literacies, drawing on her own data as well as a study of college students creating a Spanish-language CD-ROM (Kramsch, A'Ness, & Lam, 2000). Their article illustrates how the very concept of authorship is changing in new media, with students empowered not only to author texts but also to help rewrite the very rules by which texts are created. They conclude that this ability, together with the authenticity of audience in online communication, creates new possibilities of *agency*, that is, the power to take meaningful action and see the results of one's decisions and choices (cf. Murray, 1997).

This body of ethnographic work by Warschauer and Lam has several important implications for language pedagogy and research. First, because language learners do not just speak a language (a standard singularity) but speak from particular social positions (a plurality), teachers and researchers should be less concerned with learners' conformity to standard language norms in their online language use and more concerned with how well learners can use all their available linguistic, cognitive, and social resources to negotiate the linguistic, interactional, and cultural demands of online discourse. Second, what is important about language and literacy development on the Internet is not just the ability to read and write in comprehensible language, but also the ability to negotiate new roles and identities. Socialization and identity construction can have either a facilitating or restrictive effect on language and literacy development, depending in part on whether instructors encourage learners to participate as creative producers of new media and as agents of purposeful communication and action.

## Conclusion

Whereas earlier research investigated computer-mediated communication through the lenses of previous forms of spoken or written interaction, more recent research is allowing us to better understand the Internet as an authentic communication medium in its own right. Though we have not seen any single *computer effect* that guarantees certain outcomes in Internet-based learning, we have learned how the affordances of this new medium problematize some of our earlier notions of interaction, culture, identity, and literacy. This research suggests that language educators should use the Internet not so much to teach the same thing in a different way, but rather to help students enter into a new realm of collaborative inquiry and construction of knowledge, viewing their expanding repertoire of identities and communication strategies as resources in the process.

## Note

1. The Penn State Telecollaboration Project, funded by a U.S. Department of Education International Research and Studies Program Grant, studies intercultural communication in university-level foreign language classes, focusing on language acquisition, cultural awareness, and beliefs about language learning. One class in each language (French, German, Spanish) uses e-mail, Web-based threaded discussion, and synchronous chat for communication and collaboration with a partner class abroad, while the second class serves as a control group, using the same electronic media for intraclass communication only (Thorne, 2003).

## ANNOTATED BIBLIOGRAPHY

Belz, J. A. (2003). Linguistic perspectives on the development of intercultural competence in telecollaboration. *Language Learning and Technology*, 7(2), 68–117.

This article explores linguistic dimensions of intercultural competence by analyzing the online discourse of two German students and an American student participating in a university-level foreign language telecollaborative project. Using appraisal theory and epistemic modality in her analysis, Belz argues that such linguistically grounded analyses can augment content analyses in studies that examine the development of student attitudes toward self and other in online exchange projects. She suggests that the differences in interactional styles exhibited by the three students in her study are indications that learners need to become aware of the existence of culturally dominant communication patterns and of how those patterns may affect their intercultural interactions.

Furstenberg, G. (2003). Reading between the cultural lines. In P. Patrikis (Ed.), *Reading between the lines: Perspectives on foreign language literacy* (pp. 74–98). New Haven, CT: Yale University Press.

This chapter provides fascinating glimpses into the experiences of students exploring two cultures interactively through language, illustrating the design and principles of *Cultura* (described in Furstenberg, Levet, English, & Maillet, 2001). In this project culture is problematized through juxtapositions of materials, interpretations, and responses to interpretations. Students see that there can be variability in “insider” views, and yet they can also be brought to see coherent patterns, which allow them to explore the contours of cross-cultural differences in concepts, values, and discourses.

Kramsch, C., & Thorne, S. (2002). Foreign language learning as global communicative practice. In D. Block & D. Cameron (Eds.) *Globalization and language teaching* (pp. 83–100). London: Routledge.

This paper calls into question notions of what it means to be a competent communicator in the virtual world. Kramsch and Thorne analyze a French-American e-mail exchange and find that a clash in cultural frames and communicative genres hindered students' ability to develop common ground for cross-cultural understanding. The French students, who were operating out of a discourse of truth, and the American students, operating out of a discourse of trust, found themselves engaged in communicative cross-purposes that extended well beyond linguistic misunderstandings alone. They argue that terms like communicative competence and negotiation must be reassessed in global communicative practices, which are closely bound together with local cultural and situational contexts.

Lam, W. S. E. (2003). *Second language literacy and identity formation on the Internet: The case of Chinese immigrant youth in the United States*. Unpublished doctoral dissertation, University of California, Berkeley.

This recent dissertation presents four case studies of Chinese immigrant youths, showing how they came to occupy new social positions and identities by acquiring and appropriating new discourses in online environments (one of these case studies was published as Lam, 2000). Lam's study considers not only how social contexts shape language use in online environments but also, and most importantly, how online communication shapes social contexts and participants' identity formation. Furthermore, her work draws attention to the ways in which language functions in relation to other forms of online semiosis.

Warschauer, M., & Kern, R. (Eds.). (2000). *Network-based language teaching: Concepts and practice*. New York: Cambridge University Press.

This edited book draws together 10 valuable papers, including theoretical pieces and research studies, on the teaching and learning of second languages using computer networks. Especially valuable to second language researchers and educators will be the introduction by Kern and Warschauer, which introduces a sociocognitive perspective on computer-assisted language learning; the studies by Davis and Thiede, Schultz, and Pelletierri, which analyze L2 computer-mediated interaction and its outcomes; and a chapter by Warschauer, which summarizes his earlier (Warschauer, 1999) ethnographic case study of online language learning.

Warschauer, M. (2002). Languages.com: The Internet and linguistic pluralism. In I. Snyder (Ed.), *Silicon literacies: Communication, innovation, and education in the electronic age* (pp. 62–74). London: Routledge.

This paper draws on data from Hawai'i, Egypt, and Singapore to analyze the relationship of online communication to the exploration and expression of language users' plural and evolving identities. Drawing on theories of globalization, the paper illustrates how the Internet supports both international networks (by facilitating the expansion of global English) and local identities (by allowing diverse forms of grassroots communication and publishing in a variety of local languages and dialects).

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