The Language of Cyberspace

Leah P. Macfadyen
The University of British Columbia, Canada

Sabine Doff
Ludwig Maximilians Universität, München, Germany

INTRODUCTION

Amid the many published pages of excited hyperbole regarding the potential of the Internet for human communications, one salient feature of current Internet communication technologies is frequently overlooked: the reality that Internet- and computer-mediated communications, to date, are communicative environments constructed through language (mostly text). In cyberspace, written language therefore mediates the human-computer interface as well as the human-human interface. What are the implications of the domination of Internet and computer-mediated communications by text?

Researchers from diverse disciplines—from distance educators to linguists to social scientists to postmodern philosophers—have begun to investigate this question. They ask: Who speaks online, and how? Is online language *really* text, or is it "speech"? How does culture affect the language of cyberspace? Approaching these questions from their own disciplinary perspectives, they variously position cyberlanguage as "text," as "semiotic system," as "socio-cultural discourse" or even as the medium of cultural hegemony (domination of one culture over another). These different perspectives necessarily shape their analytical and methodological approaches to investigating cyberlanguage, underlying decisions to examine, for example, the details of online text, the social contexts of cyberlanguage, and/or the social and cultural implications of English as Internet *lingua franca*. Not surprisingly, investigations of Internet communications cut across a number of pre-existing scholarly debates: on the nature and study of "discourse," on the relationships between language, technology and culture, on the meaning and significance of literacy, and on the literacy demands of new communication technologies.

BACKGROUND

The multiple meanings of the word "language"—both academic and colloquial—allow it to signify multiple phenomena in different analytical frameworks, and complicate any simple search for literature on the language of cyberspace. This article surveys the breadth of theoretical and empirical writing on the nature and significance of text, language, and literacy in Internet- and computer-mediated communications, and indicates the different theoretical approaches employed by current researchers. In particular, this article emphasizes research and theory relevant to conceptions of the Internet as a site of international and intercultural communications—the so-called "global village"—and offers some reflection on the importance of research on online language for the field of human-computer interaction.

PERSPECTIVES ON THE LANGUAGE OF CYBERSPACE

Cyberlanguage as Digital Text

Perhaps belying their perception of Internet communications as primarily *written* communication (a perspective contested by some (Collot & Belmore, 1996; Malone, 1995) a number of authors have focused on the features of digital text (and their impact on readers) as an approach to investigating cyberspace communications. A particular area of interest has been the development of hypertext, whose non-linear, non-sequential, non-hierarchical and multimodal (employing images, sound, and symbols as well as text) nature seemed to place it in stark contrast to traditional printed texts. Hypertext has

been hailed as a postmodern textual reality (Burbules & Callister, 2000; Landow, 1997; Snyder, 1996), making fragmentation and complex-cross-referencing of text possible and easy. Researchers also argue that hypertext radically changes the nature of literacy, positioning the author as simply the "source," and favouring a new form of open-ended "associative" reading and thought (Burbules & Callister, 2000; Richards, 2000). One of the first researchers to focus on hypertext was Kaplan (1995), who described how it would "offer readers multiple trajectories through the textual domain" (¶ 1). Kaplan suggests that "each choice of direction a reader makes in her encounter with the emerging text, in effect, produces that text," and points out that while some hypertexts are printable, many new forms are native only to cyberspace, and have no printable equivalents. Douglas (2000), on the other hand, discusses ways in which hypertext may offer readers *less* autonomy than paper-based texts, a position supported by Harpold (2000) who argues that digital texts are "empirically fragile and ontologically inconsistent" (p. 129). Tuman (1995) offers a particularly strong critique of hypertext, which is, he argues, "ideally suited for the storing and accessing of diverse information, [but] not for sustained, critical analysis."

What are the implications of hypertext for human-computer interaction? Braga and Busnardo (2004) argue that while hypertext media encourage multimodal communications, some designers (especially novice designers) are not familiar enough with this type of communication because their own literate practices tend to be anchored in verbal language and print-based text. Construction of effective hypertext, they argue, calls for new and different approaches to organization of information and segmentation, a recognition of the challenges of screen-reading and navigation, and an understanding of the evolving conventions of different electronic contexts (Snyder, 1998) in which "electronically literate" and novice users may have different expectations.

Cyberlanguage as Semiotic System

A significant proportion of current studies of online language report on semiotics: the detailed and sometimes mechanistic features—signs and symbols—of

the linguistic systems elaborated by users in a range of Internet and computer-mediated communication venues such as email, asynchronous discussion boards, computer conferencing, and synchronous "chat" platforms.

Many papers discuss evolving conventions of online communications: features, grammar, and lexicography. Most compare and contrast communications in different venues and/or with written or spoken language (almost always English). They generally conclude that online communication is an intermediate stage between oral and written modalities, and some studies (Collot & Belmore, 1996) differentiate further between features of synchronous (online) and asynchronous (offline) digital communications. A number of papers examine in particular the textual and graphical systems (such as emoticons) that users employ within online communications to add back some of the contextual features that are lost in electronic communications (for detailed references see Macfadyen, Roche, & Doff, 2004). Burbules (1997) meanwhile highlights the *hyperlink* as the key feature of digital texts, and explores some of the different roles links may play beyond their simple technical role as a shortcut: an interpretive symbol for readers, a bearer of the author's implicit ideational connections, an indicator of new juxtapositions of ideas.

Kress and Van Leeuwen (1996) propose that the shift to multimodality facilitated by digital texts necessitates a new theory of communication that is not simply based on language, but also takes into account semiotic domains and the multiplicity of semiotic resources made available by digital media. While such resources *are* significant features of online interfaces, we caution against simplistic extrapolation to interface design models that over-privilege signs and symbols as mediators of meaning in Internet- and computer-mediated interactions, and also against overly simple attempt to identify sets of "culturally-specific" signs and symbols for user groups based on essentialist notions of culture. (This phenomenon and its associated problems are discussed more extensively in Macfadyen, 2006).

New Literacies?

In a milieu where the interface is overwhelmingly dominated by text, it might seem self-evident that

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