

# The Culture(s) of Cyberspace

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## INTRODUCTION

Computer-mediated communication between humans is becoming ubiquitous. Computers are increasingly connected via high-speed local and wide-area networks, and via wireless technologies. High bandwidth interaction is increasing communication speed, offering the possibility for transmission of images, voice, sound, video and formatted data as well as text. Computer technologies are creating the possibility of entirely new interfaces of human-machine interaction, and entirely new virtual “spaces” for human-human interaction. As a collectivity, these new spaces of communication are known as cyberspace.

Human-human interaction is the foundation of culture. Vygotsky and Luria’s (1994) model of cultural development highlights the need to consider the culture(s) of cyberspace (“cyberculture(s)”) in any examination of computer-mediated human communications, because it invokes both the communicative and behavioural practices that humans employ as they interact with their environment.

## BACKGROUND

Vygotsky and Luria (1994) propose that human beings use multiple psychological structures to mediate between themselves and their surroundings. Structures classified as *signs* include linguistic and non-linguistic mechanisms of communication; structures classified as *tools* encompass a wide range of other behavioural patterns and procedures that an individual learns and adopts in order to function effectively within a culture or society. Together, signs and tools allow individuals to process and interpret information, construct meaning and interact with the objects, people and situations they regularly encounter. When these elaborate mediating structures, finely honed to navigate a specific

environment, encounter a different one, they can malfunction or break down completely.

In the context of the Internet, human beings do not simply interact with digital interfaces. Rather, they bring with them into cyberspace a range of communicative and behavioural cultural practices that impact their ability to interact with technology interfaces, with the culture of the virtual spaces they enter, and with other humans they encounter there. Their individual and group cultural practices may or may not “match” the practices of the virtual culture(s) of cyberspace. Some investigators have gone as far as to suggest that the sociocultural aspects of computer-mediated human interaction are even more significant than technical considerations of the interface in the successful construction and sharing of meaning. This article surveys current theories of the nature and construction of cyberculture(s), and offers some brief thoughts on the future importance of cyberculture studies to the field of HCI.

## KEY DEBATES IN CYBERCULTURE STUDIES

Perhaps the most striking feature of the body of current literature on cyberculture is the polarization of debate on almost every issue. A few authors examine these emerging paradoxes directly. Fisher and Wright (2001) and Poster (2001) explicitly compare and contrast the co-existing utopian and dystopian predictions in discourse surrounding the Internet. Lévy (2001a), Poster (2000), and Jordan (1999) go as far as to suggest that the very nature of the Internet itself *is* paradoxical, being universalizing but non-totalizing, liberating *and* dominating, empowering *and* fragmenting, constant only in its changeability. Most writers thus far have tended, however, to theorize *for* one side or the other within polarized debates, as will become evident next.

## **Utopia or Dystopia?**

While not explicitly espousing technological instrumentalism (an assumption that technology is “culture neutral”), a number of writers offer utopian visions for the so-called Information Superhighway. Such theorists predict that the emancipatory potential of Internet communications will help to bring about new forms of democracy and new synergies of collective intelligence within the Global Village of cyberspace (Ess, 1998; Lévy, 2001a, 2001b; Morse, 1997).

Their detractors argue that these writers ignore the reality that culture and cultural values are inextricably linked to both the medium and to language (Anderson, 1995; Benson & Standing, 2000; Bijker & Law, 1992; Chase, Macfadyen, Reeder, & Roche, 2002; Gibbs & Krause, 2000; Pargman, 1998; Wilson, Qayyum, & Boshier, 1998) and that cyberculture “originates in a well-known social and cultural matrix” (Escobar, 1994, p. 214). These theorists more commonly offer dystopian and technologically deterministic visions of cyberspace, where money-oriented entrepreneurial culture dominates (Castells, 2001), which reflects and extends existing hierarchies of social and economic inequality (Castells, 2001; Escobar, 1994; Jordan, 1999; Keniston & Hall, 1998; Kolko, Nakamura, & Rodman, 2000; Luke, 1997; Wilson et al., 1998), and which promotes and privileges American/Western cultural values and the valorization of technological skills (Anderson, 1995; Castells, 2001; Howe, 1998; Keniston & Hall, 1998; Luke, 1997; Wilson et al., 1998).

These and other thematically polarized arguments about cyberculture (such as “Internet as locus of corporate control” versus “Internet as new social space” (Lévy, 2001a) or “Internet as cultural context” versus “Internet as a cultural artifact” (Mactaggart, 2001) are evident in the philosophical arguments underlying work listed in other sections of article.

## **Modern or Postmodern?**

A second major division in theoretical discussions of the nature and culture of the cyberspace is the question of whether the Internet (and its associated technologies) is a modern or postmodern phenom-

enon. Numerous writers frame the development of Internet technologies, and the new communicative space made possible by them, as simply the contemporary technical manifestation of “modern ideals, firmly situated in the revolutionary and republican ideals of liberty, equality and fraternity” (Lévy, 2001a, p. 230). Emphasizing the coherence of current technologies with ongoing cultural evolution(s), Escobar (1994) discusses the Western cultural foundations of technological development, and Gunkel and Gunkel (1997) theorize that the logic of cyberspace is simply an expansion of colonial European expansionism. Castells (2001) sees cyberculture as emerging from an existing culture of scientific and technological excellence “enlisted on a mission of world domination” (p. 60). Orvell (1998) pointedly argues that “debates about postmodernity have evinced a kind of amnesia about the past” (p. 13) and claims that cyberspace and virtual reality technologies are continuous with the Romantic imagination as it developed in the 1830s and 1840s. Disembodiment, he argues, is not a new product of the modern age, but was the “triumph of the Romantic imagination” (p. 16).

More recently, other writers have begun to envision the cultural sphere of cyberspace as radically new, postmodern, and signifying a drastic break with cultural patterns of community, identity and communication. For example, Webb (1998) suggests that the frontier metaphors of cyberspace symbolize a postmodern shift from human/territorialized to non-human/deterritorialized computer-mediated environments. Poster (2000) claims that Internet technologies have actually brought into being a “second order of culture, one apart from the synchronous exchange of symbols and sounds between people in territorial space” (p. 13). He predicts that the cultural consequences of this innovation must be “devastation for the modern” (p. 13), and (2001) reformulates for this context the propositions of postmodern theorists such as Foucault, Heidegger, Deleuze, Baudrillard and Derrida who challenge modernist notions of progress, definable “authentic” selfhood and the existence of absolute foundations for or structures of, knowledge (for a short review of postmodern thought see Schutz, 2000). Poster argues effectively that postmodern perspectives on life and culture that go beyond old notions of fixed social structures may

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