

Introduction:
What's Culture Got to Do with It?
Cultural Collisions in the Electronic Global
Village, Creative Interferences, and the Rise
of Culturally-Mediated Computing



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**Beyond McLuhan: Interdisciplinary Directions Towards an
Intercultural Global Village**

In both popular and scholarly literature, the explosive growth of the Internet and the World Wide Web occasions what communication theorist James Carey (1989) identified over a decade ago as a Manichean debate. On the one hand, the “digerati,” including such well-known enthusiasts as Nicholas Negroponte (1995) and Bill Gates (1996), promise the realization of Marshall McLuhan’s utopian vision of an electronic global village—a theme reflecting earlier, especially postmodernist celebrations of hypertext and computer-mediated communication, as marking out a cultural shift as revolutionary as the printing press, if not the invention of fire (e.g., Lyotard 1984; Bolter 1986, 1991; Landow 1992, 1994). On the other hand, critics see these enthusiastic claims as, at best, resting on questionable myths (Hamelink 1986; Balsamo 1998; Lievrouw 1998) and, at worst, as an electronic utopianism and boosterism (Calabrese 1993; Gaetan 1995; Stoll 1995). Such boosterism, and an unthinking cultural migration into cyberspace, they suggest, may in fact result in less democracy and freedom—and greater exploitation, alienation, and disparities between the haves and the have-nots.¹

Carey cautions us, however, that this Manichean dilemma is not especially novel. The dilemma reaches back, rather, to the founding documents of the American experience—to the debates between Jefferson and Madison (see the *Federalist Papers*, numbers X

and XIV) concerning the role of the new federal government in subsidizing canals and roads. Since democratic polity requires debate and exchange among citizens, it had been argued since Plato that such polities were “naturally” limited—in effect, by the prevailing communication technologies of direct speech and travel by foot or animal. The concern of Jefferson and Madison was how to overcome these natural limits—a necessity if the new republic of thirteen colonies were to be democratic in any meaningful sense. In a conceptual and philosophical maneuver that Carey believes has become definitive of American attitudes regarding technology, Jefferson and Madison turn to communication technologies—in their day, canals and roads—which could overcome the otherwise natural limits to democratic polity.²

In this way, Carey suggests that American culture is shaped from the founding of the Republic with a belief that technology, especially communication technologies, can facilitate the spread of democracy and democratic values. Our tendency to debate new technologies in Manichean terms thus falls out of what amounts to a larger cultural assumption that such technologies may overcome otherwise intractable barriers to democratic polity and, should they fail to do so, only the worst anti-democratic possibilities will be realized.

This Manichean debate, moreover, manifests itself on a global scale in the duality identified by political scientist Benjamin Barber as “Jihad vs. McWorld” (1992, 1995). Barber observes that globalization—brought about in part precisely through contemporary technologies which transfer goods and information with ever greater speed and efficiency—tends towards a homogenous “McWorld” in which all significant cultural and linguistic differences are collapsed into a global consumer culture whose *lingua franca* is English and whose primary cultural activity is trade. In the face of this powerful threat to cultural identity, Barber argues, we thus see “Jihad,” the rise of local autonomy movements that can become notoriously violent in the name of cultural survival.³

If these Manichean dualities represent prevailing presumptions and debates concerning the exponential expansion of computer-mediated communication (CMC) technologies, these oppositions may not be as intractable as they seem. Indeed, we may question these dualities on several levels, beginning with just the point raised by Carey’s analysis of this Manichean debate as distinctively American in character.⁴ That is, Carey thereby brings to the foreground the role of culture in shaping our discourse and assumptions about communication technologies and their ostensibly crucial role in sustain-

ing the American values of democracy, equality, free speech, etc. But this suggests in turn two central points. First, the assumptions and values shaping our discourse about CMC technologies may be culturally limited: if we explore cultures outside the American orbit, we may find quite different and distinctive assumptions and values. Second, in doing so, we may find alternative ways of understanding the potentials of CMC technologies that allow us to escape, in particular, the Manichean opposition between computer-mediated utopias and dystopias.

The papers gathered here represent precisely an interdisciplinary effort to explore the role culture plays in forming our fundamental beliefs and values—not only with regard to communication and technology, but still more fundamentally towards such basic values as those that cluster about our preferences for democratic polity, individual autonomy, etc. They do so through the lenses of especially three disciplines:

philosophy—as, among other things, an effort to articulate and critically evaluate fundamental assumptions, including the assumptions regarding *values* (ethics and politics), *reality* (as restricted to the material or not), *knowledge* (what counts as legitimate knowledge and how legitimate knowledge(s) may be acquired), and *identity* (including assumptions about human nature, gender, etc.) that define the *worldviews* definitive of diverse cultures;

cultural studies—including, but not restricted to, anthropology, sociology, as well as the “sciences of culture” (*Kulturwissenschaften*)⁵ supported in European institutions, and so forth; and

communication theory—including intercultural communication.

The papers in Part I, “Theoretical Approaches: Postmodernism, Habermas, Luhmann, Hofstede,” introduce us to the major theoretical frameworks shaping contemporary analysis and discourse: postmodernism (Jones), Habermas and Luhmann (Becker and Wehner), and Hofstede (Maitland and Bauer). Part II, “Theory/*Praxis*,” consists of case studies and research projects from diverse cultural domains that foreground specific cultural values and preferences, and how these interact with CMC technologies developed in the West. These papers document both cultural collisions and creative interferences

as Western CMC technologies are taken up in Europe, the Middle East and Asia. Finally, Part III, “Cultural Collisions and Creative Interferences on the (Silk) Road to the Global Village: India and Thailand,”⁶ consists of two papers. These echo the patterns of collision and the emergence of new cultural hybrids out of those collisions documented in Part II. But they also provide both suggestions for software localization (Keniston) and a specific model (Hongladarom) for understanding how CMC technologies may be used to catalyze global communication while preserving and enhancing local cultures.

Taken together, these essays demonstrate three key points:

1. While each theory represented here (including postmodernisms, a Habermasian counter to postmodernism, communication theories, and contemporary efforts to predict network diffusion based on identifiable cultural variables (Hofstede/Maitland, Bauer) is partially successful in important ways, no single current theory satisfactorily accounts for or predicts what happens as CMC technologies are taken up in diverse cultural contexts.
2. Culture and gender indeed play a dramatic role in determining how CMC technologies are taken up, whether in the example of listservs and conferencing in an American classroom (Stewart et al.), or in the multiple cultural collisions documented here in the European context (Rey, Hrachovec), the Islamic world (Wheeler), India (Keniston), and the Asian countries of Japan (Heaton), Korea (Yoon, Fouser), and Thailand (Hongladarom).
3. A middle ground between the polarities that otherwise dominate American discourse in particular can, in fact, be theoretically described and implemented in *praxis*. There is an alternative to either Jihad or McWorld, to either postmodern fragmentation or cultural imperialism in the name of putative universals.

Collectively, then, these essays constitute a distinctive conjunction of theory and *praxis*—one that articulates interdisciplinary foundations and practical models for designing and using CMC technologies in ways that avoid the Manichean dualism of Jihad or McWorld, and mark out instead a trajectory towards a genuinely intercultural global village. Especially as these essays illuminate the role of cultural values and communication preferences in the imple-

mentation and use of CMC technologies, they first of all uncover the “cosmopolitanism” of popular conceptions of an electronic global village as paradoxically ethnocentric precisely because it ignores the cultural dimensions of both technology and communication. Indeed, like other forms of ethnocentrism, such popular conceptions, especially as fueled by the rapid commercialization of the Net, threaten to further a globalization process that works only by obliterating all cultural distinctiveness. Second, these essays provide the theoretical and practical insights needed to foster an alternative conception of cosmopolitanism: they suggest that what is needed for an intercultural global village in which cultural differences are preserved and enhanced while global communications are also sustained is a new kind of cosmopolitan, one who—precisely through the recognition of the complex interactions documented here between culture, communication, and technology—can engage in both global and local cultures in ways that recognize and respect fundamental cultural values and distinctive communicative preferences.

To see how this is so, I will first provide an overview of each chapter, followed by a summary of some of the insights and additional questions that emerge from these, both individually and collectively. In the last section, I will turn to a fuller description of the sorts of cultural polybrids suggested by these essays, both individually and collectively, as necessary citizens in an intercultural global village.

Overview

Part I. Theoretical Approaches: Postmodernism, Habermas, Luhmann, Hofstede

Steve Jones, in “Understanding Micropolis and Compunity,” reviews a number of familiar communication theorists, including Ong and McLuhan, as he develops his own metaphors of path and field to discuss the influence and meaning of Internet messages. In particular, he takes up Carey’s distinction between ritual and transportation models of communication to address compunity, which he defines as the merger of computers with communities and our sense of community. This merger, claims Jones, is strained between the traditions and rituals of real life and the kinds of communication as transportation facilitated through CMC. Jones analyzes four areas—privacy, property, protection, and privilege—as central to possible on-line communities.

His analysis both effectively represents the postmodernist approaches that have dominated Anglo-American analysis of hypertext and CMC, and uncovers important ambiguities in the effort to recapture lost community on-line. Such efforts, according to Jones, are only partially successful, and they introduce in their wake new difficulties distinctive to cyberspace. (Such mixed results and ambiguities, we will see, will be characteristic of several analyses and research projects.)

Barbara Becker and Josef Wehner, in “Electronic Networks and Civil Society: Reflections on Structural Changes in the Public Sphere,” build on their original presentation at CATaC’98. They begin with a useful overview of a now classic dichotomy. They start with the enthusiasts who see the Internet as inaugurating a communications revolution that will further issue in a radically new form of direct (specifically, libertarian and plebiscite) democracy. The skeptics, by contrast, argue that the Internet is increasingly shaped by new hierarchies and centralized structures, efforts to control and protect information, and a commercialization that threatens to drown out all other activities besides trade. (Sunny Yoon, as we will see, begins with this same dichotomy, including the same warning against the dangers of commercialization.) They draw on theory, including the important debate in contemporary German philosophy between Luhmann and Habermas, as well as empirical research to develop a middle ground between the optimists and the skeptics.

While the optimists see in CMC the promise of radical democracy, Becker and Wehner, echoing especially postmodern analyses of the fragmenting and decentering effects of CMC, note that the kinds of interactive communications that emerge on the Net are precisely those of what amount to special interest groups—relatively small groups of people, often scattered geographically and culturally, who share some minimal set of common interests and abilities, but not necessarily connected (or interested) in any larger, more commonly-shared universe of discourse concerning widely-shared political issues, etc. Indeed, Becker and Wehner note several additional objections to the optimists’ dream of radical democracy. Beyond the very real and thorny problems of maldistribution of the economic resources and infrastructure needed to participate in the Net, they take up Bourdieu’s notion of cultural capital to observe that not everyone has the level of education, etc., needed to participate meaningfully in on-line exchanges. (Sunny Yoon will also take up Bourdieu, to also stress anti-democratic elements of the Net.) As well, there is the simple problem of noise: “Through networking, more and more participants have a voice; but because of the increasing number of

participants, there is less and less time to listen.”⁷ Nonetheless, Becker and Wehner draw on Habermas’s conception of *Teilöffentlichkeiten* (“partial publics,” including professional organizations, university clubs, special interest groups, etc.) as loci of discourses that contribute to a larger democratic process in modern societies. Over against the anti-democratic impacts of CMC, they see this Habermasian notion as describing an important component of how CMC technologies may sustain (within limits) a “civil society” as part of a larger democratic process.⁸

Carleen F. Maitland and Johannes M. Bauer, in “National Level Culture and Global Diffusion: The Case of the Internet,” start with a careful inventory of the theoretical and practical obstacles to undertaking especially quantitative research into the impact of culture on the diffusion of technology. In the face of these difficulties, Maitland and Bauer first modify and enhance diffusion theory so that it may take up extant quantitative data to explain and predict technology diffusion on a global level. They then move from theory to *praxis* by providing a case study of such analysis as applied to Internet growth. Previous research has tended to focus on matters of economy and infrastructure with relatively little work in the area of culture, in part because earlier work has shown that economic factors are the stronger predictors of technology adoption. In order to test these findings and their own enhancements of earlier diffusion theory, Maitland and Bauer build especially on the work of Hofstede and Herbig to include three cultural factors in their study: uncertainty avoidance, gender equality, and English language ability.

Their extensive statistical study draws on a considerable range of data sources, as available for 185 countries during the time period between 1991 and 1997. In examining Internet growth between countries, they find that cultural variables are less significant in explaining adoption than economic or infrastructure variables: of these, teledensity, international call cost, and school enrollment emerge as the strongest predictors, the last finding supporting the importance of education in development. For that, the cultural factor of English language ability also plays a significant role. In analyzing growth within countries, their data likewise uncovers a comparatively stronger role for economic factors—in this case, the number of PCs per capita. But cultural factors—namely, uncertainty avoidance and gender empowerment—also play a significant role.

Maitland and Bauer’s work is significant because it refines diffusion theory so as to more adequately take into account specifically

cultural factors, and as their analysis demonstrates the importance of cultural factors: simply, by including cultural factors along with economic and infrastructure dimensions, their models enjoy an increased predictive power. And, especially for our purposes, their work is important as it provides an empirical basis that demonstrates the impact of important cultural variables on technology diffusion. Finally, their quantitative approach, as confirming the importance of English language ability, meshes well with Becker and Wehner, as well as Yoon, all of whom take up Bordieu's notion of cultural capital (which includes language ability) as a necessary element of cultural analysis; this finding is further consistent with Keniston's observations regarding the role of English as a passport to computing—and thus to power and prestige—in India.

Part II: Theory/Praxis

a. THE EUROPEAN CONTEXT

Herbert Hrachovec, in "New Kids on the Net: Deutschsprachige Philosophie elektronisch," documents several experiments with conducting philosophy on-line in the German-speaking world, illustrating "the force and limits of attempts to install a computer-mediated space of Reason." Hrachovec is critical of too closely identifying at least the current realities of hypertext with such standard postmodernist theorists as Barthes and Derrida (an identification made most effectively and prominently by George Landow). In particular, it may not be accidental that "electronic philosophy" is very much at the margins of German academic life: "some features of the new discursive forms are incompatible with the current educational system." Hrachovec's study of the contrasts between the "microcultures" (my term) of traditional academia and on-line discourse may point to similar contrasts in larger contexts.

Lucienne Rey, in "Cultural Attitudes toward Technology and Communication: A Study in the 'Multi-cultural' Environment of Switzerland," examines the political differences between the four major linguistic groups of Switzerland—German, French, Italian, and Romansch—and then seeks to determine whether these ethnic/linguistic differences also correlate with different attitudes towards technology. In point of fact, her findings suggest that the German-speaking part of Switzerland, the most politically and economically dominant component of the country, is at the same time

the most conservative in the sense that German-speaking Swiss show less openness to and interest in the new communications technologies than their Latin compatriots. Rey helpfully suggests that this cultural attitude may have two roots. First, she notes that German scepticism towards progress through technology is rooted in the German Romantic tradition, as this tradition reacts against the Enlightenment and the early stages of mechanization as brought about by the Industrial Revolution. Two, she observes a contrast between the playfulness of the Swiss-French and the seriousness of the Swiss-Germans. Given the playful dimensions of interactions on the Net and the Web, she hypothesizes, they are likely to be more attractive to the French than the Germans.

b. GENDER/WOMEN IN ISLAM

Contrary to the common presumption that CMC technologies bring about greater openness and democratization, Concetta Stewart, Stella F. Shields and Nandini Sen, in "Diversity in On-Line Discussions: A Study of Cultural and Gender Differences in Listservs," begin with the recognition that women and minorities have historically enjoyed less access to these technologies. To better understand this exclusion, they explore in their own study how two sorts of differences in communication style appear in listservs: cultural differences first articulated by Hall between high- and low-context cultures (and supplemented here by Ting-Toomey's Face-Negotiation Theory); and gender-related differences, documented by Tannen and Herring. Their rich overview of earlier research into gender and cultural variables (including those delineated by Hofstede) in cross-cultural communication theory demonstrates that while there is a significant body of research in intercultural communication, cross-cultural communication in CMC environments has been relatively ignored until now. Their study of an in-class listserv, intended to further free and open communication among a considerable diversity of students, strikingly confirms that gender and culture profoundly limit how far conversation on listservs may be said to be open and democratic.

Just as elsewhere, the Internet and the Web are of compelling interest in the various countries and cultures centrally shaped by Islamic values and traditions. And this is despite a possible mismatch between the "high content/low context" communication preferences which have shaped the Western development of these

technologies versus the “high context/low content” character of communication in Arabic societies.⁹ Deborah Wheeler, in “New Technologies, Old Culture: A Look at Women, Gender, and the Internet in Kuwait,” takes up the familiar promise claimed by Western proponents of CMC technologies—that they will promote democracy, prosperity, and equality, including gender equality—and tests this promise against a careful ethnographic study of Kuwaiti women and their use of the Internet. Her case study is valuable first of all as it sheds light on a little researched but critically important series of intersections: Islam and sharply-defined gender roles vis-à-vis a communication technology hailed by Western feminists for its promise of expanding gender equality. In addition, Kuwait is especially instructive insofar as it enjoys one of the highest per capita incomes in the world. These and other characteristics mean that if there is resistance to new CMC technologies, such resistance is not obviously the result of infrastructure deficits, an entrenched anti-technology culture, or extreme patriarchal structures.

Wheeler’s analysis of how far the Internet and the Web serve the cause of gender equality shows decidedly mixed results. On the one hand, her interviews with younger women support the notion that these new technologies do have a liberating impact. For example, they allow women to converse “unescorted” with men in chat rooms, and to meet and choose mates on their own (rather than agree to the cultural norm of arranged marriages). At the same time, however, she finds that the powerful restrictions against women speaking openly in Kuwait are directly mirrored in differences between women’s and men’s characteristic use of CMC technologies. As she observes, “The advent of new fora for communication does not automatically liberate communicators from the cultural vestiges which make every region particular and which hold society together.” While Wheeler concludes on a hopeful note, she reminds us nonetheless that activism is always local and thus shaped by specific institutional and cultural imperatives.

c. E_{AST}-W_{EST}/E_{AST}

Contrary to the view that technologies are value and culturally neutral, in “Preserving Communication Context: Virtual Workspace and Interpersonal Space in Japanese CSCW,” Lorna Heaton presents two case studies to show how cultural values and communication styles specific to Japan are incorporated in the design of computer-

supported cooperative work (CSCW) systems. She does so from a social constructivist view, one that further suggests that technologies can be “read” as texts, and drawing specifically on Bijker and Law’s notion of technological frame to explain how Japanese designers invoke elements of Japanese culture in justifying technical decisions. Heaton highlights the importance of nonverbal cues and the direction of gaze in Japanese culture as an example of Hall’s “high context/low content” category of cultural communication style, in contrast with Western preferences for direct eye contact and “low context/high content” forms of communication. She also notes in her conclusion the Japanese interest in pen-based computing, speech synthesis, virtual reality interfaces, etc., as resulting not only from the physical difficulties of using a Roman keyboard to input Japanese, but also the larger cultural preference for high context in communication.

Sunny Yoon, in “Internet Discourse and the *Habitus* of Korea’s New Generation,” counters the familiar portrayal of the Internet as a medium that will engender greater democracy, especially in the form of an electronic “public sphere” (a requirement for democracy, according to Habermas). She notes the ways in which the Net, especially as it becomes ever more commercialized, may work rather as a controlling mechanism for capital and power. Here, she takes up Foucault once again (see Yoon 1996), along with Bourdieu’s notion of *habitus*, as frameworks for analyzing power as manifested in the workings and impacts of the Net.

In contrast with other postmodernist concepts, the notion of *habitus* emphasizes individual will power and choice; these manifest themselves in individuals’ everyday practices which in turn, in an “orchestra effect,” build up the larger society and history in which individuals participate. Such *habitus* clearly influences individual choice, but not in fully deterministic ways.¹⁰ Moreover, Bourdieu sees “cultural capital” (including symbolic and institutional power—most prominently, language and education) as creating the *meconnaissance* (“misconsciousness”) of the majority, a kind of false consciousness which legitimates existing authorities.

Yoon first presents her careful quantitative study of Korean newspaper reports on the Internet and on-line activities. Her analysis makes clear that Korean journalism fails to encourage the use of the Internet as a medium of participatory communication. Rather, Korean reporting contributes to the commercialization of the Internet and thereby, some argue, unequal access to and distribution of information resources. Yoon then turns to a series of ethnographic

interviews with young Koreans (“Gen-Xers”). While she is careful to recognize that the results of her small sample cannot be generalized, her interviews demonstrate that the Internet exercises symbolic or positive power—including symbolic violence in Bourdieu’s sense—as it shapes educational rules and linguistic habits. In particular, Korean students accept the on-line dominance and importance of English without question. Language thereby becomes a cultural capital that exercises “. . . symbolic power over the cultural have-nots in the virtual world system,” a cultural capital that induces a “voluntary subjugation.” At the same time, however, Yoon documents how individuals take up the Internet, not because of its promise of greater equality and democracy, or even utility, but, rather to the contrary, because it increases their status, and thereby their distance from and power over others. As well, the comparative expertise of young people gives them considerable power over their elders because teachers, principals, and parents rely more and more on the younger generation to help them learn how to use computers, design institutional documents and web pages, etc. Contrary to the presumption that the Internet only democratizes, Yoon demonstrates that the Internet, by shaping *habitus* in these ways, can lead either to resistance or subjugation, to democratic communication, or (cultural) capitalist dominance. Consequently, she argues, we must better understand the concrete processes of how the Internet functions as the *habitus* of people in their everyday lives before attempting to decide which of these two directions the Internet might take us.

Robert Fouser, in “Culture, Computer Literacy, and the Media in Creating Public Attitudes toward CMC in Japan and Korea,” brings together a wide range of information (a review of web sites vis-à-vis print media, attitudinal survey data, comparative studies of GNP and CMC infrastructure, recent scholarship, and personal interviews) to develop a clear picture of the striking differences between Japan and Korea with regard to attitudes towards and utilization of new communications technologies, including CMC technologies. It may come as a surprise to Westerners to learn that while Japan is materially wealthier than Korea, and perhaps better known in the West for its prowess in developing and marketing new technologies, Koreans show a greater interest in and usage of CMC technologies than the Japanese. Fouser reviews two theories that might explain these differences. The first is a “culture” theory which focuses on a shared set of values and attitudes; the second is a “computer literacy” theory that looks instead to the pragmatic elements of cost, and ease of use. For example, Korean, as a language which,

like English, uses an alphabet system rather than the highly complex character systems of Japanese and Chinese, is much easier to enter through a keyboard than Japanese or Chinese. Fouser finds that the notion of “culture” is too broad to account for a Japanese lack of enthusiasm for CMC in particular, over against their more positive attitudes towards other new technologies (including mobile phones). Instead, he argues that more pragmatic elements, including political leadership in encouraging the use of new technologies, are better predictors of technology diffusion.

First of all, then, Fouser’s work—especially as read together with Yoon—helps us develop a more nuanced understanding of how CMC technologies are taken up in two distinctive Asian societies. Secondly, his work illustrates the limits of cultural approaches to questions of technology diffusion and helpfully demonstrates that such cultural approaches must be complemented with pragmatic considerations of political leadership, etc. In this second direction, his work should be taken together with the several other contributions gathered here, including Maitland and Bauer’s quantitative analysis of culture, that both individually and collectively help us better understand the difficulties of developing meaningful definitions of “culture”—and the necessity of complementing even the best definitions with additional conceptual frameworks if we are to develop a more complete understanding of the interactions between technology and culture.

Part III. Cultural Collisions and Creative Interferences on the (Silk) Road to the Global Village: India and Thailand

Some of the first indications that Western-based CMC technologies did indeed implicate culturally-distinctive values that would clash with the values and preferences of other cultures were documented in Asia.¹¹ Two final studies in this collection—the first on localized software in India, the second on an “electronic Thai coffee house”—document how local cultural values indeed collide with the values apparently shaping Western CMC technologies.

But these two chapters further demonstrate that cultural collisions [and with them, the danger of imperialism and “cultural steamrolling” (Steve Jones 1998)] are not the whole story. Rather, Kenneth Keniston argues for ways to overcome the otherwise daunting obstacles to “localizing” software. Yoon and Fouser amply demonstrate the power of English as the *lingua franca* of the Web: localization seeks to counter this power on a first level, as Keniston

explains. Such localization, however, requires not only translation of documentation and commands into another language: such transformation also extends to interface design (including icons, use of color and other symbols which vary—sometimes dramatically—in their meaning in diverse cultures), and to the underlying machine codes (such as ASCII and Unicode) which must be universal if computers and networks are to successfully communicate with one another (cf. Pargman 1999). On all these levels, the current standards are predominantly the products of Western, English-speaking computer designers and software writers. Keniston suggests ways of overcoming these obstacles in the Indian case and thereby points to how Indian efforts to localize software may be paradigms for other cultures that seek to be members of the global village while preserving local languages and cultural values. Soraj Hongladarom's account of Thai discussion groups provides a powerful example of Keniston's hope for such dual citizenship (i.e., global/local). At the same time, Hongladarom connects this dual citizenship with significant theory: he makes use of Michael Walzer's analysis of "thick" and "thin" cultures to suggest what might indeed be a model for an electronic global village which both facilitates the global and preserves the local.

Kenneth Keniston, in "Language, Power, and Software," takes up the role of language in the development and diffusion of computer technologies, specifically with a view towards how the predominant language of computing—English—reinforces current distribution patterns of "power, wealth, privilege, and access to desired resources." The problem of such linguistic imperialism (my term) is especially clear in efforts to localize software—transforming software to make it useable by those outside the cultural domains defined by English. In addition, English-only access to computing technologies also exacerbates the larger global tension identified by Barber in terms of "Jihad vs. McWorld." As Barber makes clear, finding a middle ground between these two poles is crucial for the survival of some form of participatory democracy: Keniston emphasizes the point that such a middle ground is crucial for the survival of local cultures and languages.

India is an especially compelling case study for examining these concerns. India is the world's largest democracy, a nation that further encompasses a breathtaking diversity of languages, including eighteen official languages and some three hundred unofficial spoken languages (Herring 1999b). Where English is the privileged route to power, less than 5% of these populations speak

English. But there is almost no readily available vernacular software in India.

Keniston identifies a number of fundamental obstacles to localization, including local cultural factors that weigh against localization—factors resulting from both an indigenous religious tradition and British colonialism. On the one hand, the Brahmanic emphasis on higher levels of spirituality, thought, and action, in contrast with the earthly and material, means that writing localized software programs “for the masses” seems less important than other pursuits. On the other hand, the success of British colonialism has meant precisely that English is the prestige language in India. Hence, to program in English (e.g., for export) is laudable, while programming in an indigenous language is to run contrary to the cosmopolitan trajectory affiliated with English, and to run the risk of seeming the ally of “fundamentalism” and the tribal (Jihad in Barber’s sense). And since localized software would provide access to computer technologies—and thereby, to the power, wealth, and prestige such technologies are affiliated with—for those traditionally excluded from elite status (outcasts, tribals, etc.), such software may be seen as a direct threat to the privileges enjoyed by those who would write the localized code.

Despite such obstacles, Keniston closes with a series of suggestions intended to encourage the localization of software needed if the new technologies are to help close, rather than widen, the gap between the haves and the have-nots—and if the new technologies are to help enhance cultural diversity rather than eliminate it. As Keniston notes, these difficulties are especially acute in South Asia because of its distinctive fusion of power and language. At the same time, however, successful solutions to the localization problem in South Asia are likely to serve as models for preserving democracy and cultural diversity on a more global scale as well.

How we avoid Manichean choices is the lesson suggested by Soraj Hongladarom, in his “Global Culture, Local Cultures, and the Internet: The Thai Example.” Hongladarom examines two threads of discussion developed in a Thai Usenet newsgroup, one dealing with critiques of the Thai political system and the other with the question of whether Thai should be a language, perhaps the only language, used on the newsgroup. In contrast with concerns that CMC technologies will erase local cultures and issue in a monolithic global culture, Hongladarom argues that the Internet facilitates two different kinds of communication: (1) communication that helps reinforce local cultural identity and community (in part, as this communication fulfills what Carey calls the “ritual function”, i.e. strengthening

community ties); and (2) communication that creates an “umbrella cosmopolitan culture” required for communication between people from different cultures. Hongladarom further suggests that we distinguish between a Western culture which endorses human rights, individualism, egalitarianism and other values of a liberal democratic culture (a “thick” culture in Walzer’s terms), and the cosmopolitan culture of the Internet as neutral (a “thin” culture).¹² The Thai experience suggests that the Internet does not force the importation of Western cultural values. Instead, Thai users are free to take up such issues and values if they wish, and they can do so while at the same time preserving their cultural identity.¹³

A First Philosophical Response: Whither the Electronic Global Village?

These essays demonstrate the importance of cultural attitudes in shaping the implementation and use of CMC technologies, whether those technologies are introduced within distinct but still Western cultures (Hrachovec and Rey) or in the diverse cultures of Asia and the Middle East. First of all, these chapters directly call into question the characteristically American confidence in communication technologies as making possible democratic discourse and equality, especially when confronted with the radical linguistic and cultural diversities of India (Keniston) and the deeply entrenched gender roles of Kuwaiti society (Wheeler).

These essays likewise counter the Manichean dualities of American discourse, whether in terms of cyber-utopias (including McLuhan’s global village) versus cyber-dystopias, or Barber’s double dystopia of Jihad versus McWorld. Rather, Heaton’s account of Japanese redesign of CSCW systems and Hongladarom’s experience and model of a “thin” Internet culture coupled with “thick” local cultures (especially as facilitated by localized software, as Keniston recommends) demonstrate first of all that these technologies indeed embed and abet specific cultural communication preferences (such as for high content/low context vs. low content/high context) and values (democratic polity, equality, etc.). However, they are not unstoppable forces. On the contrary, they can be localized and reshaped—and stripped, if necessary—of the cultural values and preferences they convey.

In philosophical terms, the hopes of computer-mediated heaven and fears of cyber-hells rest on a view called technological determinism. Such a view sees technology and whatever effects follow in its

wake as possessing their own autonomous power, one that cannot be resisted or turned by individual or collective decisions.¹⁴ The hope of proponents is that the introduction of CMC technologies will inevitably change cultural values for their own good. These technologies will convey and reinforce preferences for, say, free speech and individualism, particularly in the case of the Internet and the Web, as centralized control of information conveyed through these technologies is very difficult.¹⁵ In the inverse dystopian image, captured powerfully in the images of the Borg in *Star Trek*, technology is likewise an unstoppable force; once infected by the Borg implants, all humanity (meaning specifically such qualities as individuality, compassion, and choice) is lost as one becomes seamlessly integrated into the single-minded machinery of the Collective. Such science-fiction portrayals nicely capture the real-world fears of those who see CMC technologies as central engines in the global but homogeneous McWorld that will override and eliminate local choice and distinctive cultural values.

But consonant with philosophical critiques,¹⁶ such (hard) technological determinism is clearly belied by these studies, beginning with Jones' analysis of the limits of any on-line community. Such a "compunity," to use his term, is more likely to emerge as a micropolis rather than the cosmopolis of a single global culture. And as Yoon makes clear in her analysis, the *habitus* of cultural practices and attitudes surrounding computing exercises a kind of cultural power that can be both shaped and resisted by individuals. This suggests that both individuals and countries can make choices regarding how the implementation of CMC technologies will shape their political and cultural futures. Most powerfully, Hongladarom's example of "thin" Internet culture/"thick" local cultures stands as a concrete alternative to such Manichean dualisms—one instantiated in *praxis* in the Thai case.¹⁷ Negatively, these analyses and examples thus contradict the assumption of (hard) technological determinism and with it, the Manichean dualities that rest upon this assumption. Positively, they identify middle grounds between a McWorld that steamrolls local cultures and the Jihad that such imperialism and homogenization may evoke.¹⁸

From Philosophy to Interdisciplinary Dialogue: Cultural Attitudes towards Technology and Communication

Technological determinism is not the only assumption underlying the prevailing icons of what Keniston identifies as the Anglo-Saxon

discussion of CMC technologies. As we saw in the opening paragraphs, McLuhan's global village and its attendant Manichean polarities further implicate what now appears to be an especially American presumption that communication technologies are crucial for the survival and expansion of democracy and individual freedom. Moreover, especially from a philosophical approach, a range of additional presumptions can be seen to underlie the optimistic vision of an electronic global village; presumptions, moreover, which are quickly entangled in paradox and contradiction.

To begin with, such a vision is clearly cosmopolitan in its assumptions and intentions. As traced back to as far as the Stoic philosophers of the Greco-Roman world, this vision rests on an optimistic conception of a shared (and essentially rational) humanity, one capable of becoming the *cosmo-politan*—the citizen of the world—not simply the citizen of a given country and culture. This cosmopolitan trajectory is consciously developed to counter the ethnocentrism characteristic of prevailing cultures (i.e., the belief that one's own language/culture/worldview are the only "right" ones, and those who adhere to differing languages/cultures/worldviews are simply wrong, inferior, etc.).

In light of the role of culture in shaping fundamental assumptions, however, we can raise this question: Is this ostensibly cosmopolitan image, as it intends to overcome the ethnocentrism of particular cultures (as based on specific traditions, habits, prejudices, etc.) with a universally-shared humanity, itself ethnocentric as it rests upon culturally-limited assumptions, beginning with the characteristically American belief in communication technology as central to the spread of democratic polity? In other words, is this cosmopolitan vision itself a form of "cyber-centrism," an ethnocentrism in its own right that runs in tension with its cosmopolitan intentions?

Similarly, the conception of an electronic global village seems to presume that the tools of CMC—the computer codes, interfaces, etc.—are culturally neutral, i.e., they allow perfectly transparent communication between members of all cultures, without giving preference to the distinctive values and communication preferences of any single culture. Philosophers denote this presumption as "technological instrumentalism." At the same time, however, we have already seen that the electronic global village also presumes a technological determinism, the view that CMC technologies are not culturally neutral, but in fact embed, convey, and reinforce specific values such as individualism, free speech, etc. Thus, the McLuhanesque vision of an electronic global village appears to rest on two mutually contradictory

assumptions: if technology determines its users along specific value sets, it is clearly not value-neutral, and if it is value-neutral, then it clearly cannot determine its users along specific value sets. Moreover, both philosophical assumptions—technological instrumentalism and (hard) technological determinism—are called into serious question on both theoretical and practical grounds in the chapters collected here and in the larger literature.¹⁹

Since Aristotle, philosophers have recognized that theory must be tested and engaged in *praxis* (cf. *Nichomachean Ethics*, esp. 1179a35–1179b3). (Admittedly, philosophers have not always practiced this recognition!) To determine more carefully the fundamental assumptions underlying the prevailing conceptions of an electronic global village—including their potential paradoxes and contradictions—thus requires nothing less than an inquiry on a global scale into what happens in *praxis* as CMC technologies are taken up in diverse cultures. Such an inquiry, moreover, is by no means of interest only to philosophers. Rather, it requires and intersects directly with the full range of methodologies, approaches, and insights of multiple disciplines, beginning with communication theory and cultural studies. And of course, no single scholar or researcher can hope to undertake such an inquiry as a solitary exercise. This global inquiry simply requires an interdisciplinary dialogue of global scope.

The first conference on Cultural Attitudes towards Technology and Communication (CATaC'98) was devoted to just such an interdisciplinary global dialogue. As noted above, the papers collected here—most originally presented at CATaC'98—represent some of the best contributions. At this point, it may be helpful to note the strengths and limits of CATaC'98, in order to develop a more complete understanding of the larger context of these chapters, including the trajectories for future research they and CATaC'98 limn out.

Cultural Limitations

On the one hand, CATaC'98 achieved an exceptional scope in terms of the cultural domains represented by participants and presenters: studies included North/South, East/West, Industrialized/Industrializing, and Colonial/Indigenous countries/peoples.²⁰

But there were also striking absences: China, France and the Francophone countries (except Switzerland) and Arabic/Islamic countries were not represented.²¹ For that, in this volume, Deborah Wheeler's study of Internet usage in Kuwait provides important

insights into network diffusion in the Islamic world, especially with a view towards the role of gender.

Theoretical Limitation: Religion

“Religion” is ordinarily recognized as a major source (either directly or indirectly) of the worldview of perhaps all people. Nonetheless, religion is striking for its absence in these papers—again, with the exception of Deborah Wheeler’s study of women in Kuwait.

This absence raises several questions. American academic culture, for example, seems uniformly hostile to raising questions of religion, at least outside of religious studies and some sociology circles. This disciplined silence, no doubt, has several roots, ranging from the influence of positivism (which simply discarded all religious claims as nonsense while re-explaining them in materialist terms) in the academy to a characteristically American notion that “religion” is a matter of private concern only, one not to be brought up in polite society.

Such silence is a sensible strategy in the face of the power of religious issues to (literally) explode the fabric of civil society, as they have done throughout much of Western history, including early American colonial experience, contemporary UK experience, etc. But it seems clear (as Wheeler’s chapter demonstrates) that any adequate account of “culture” and CMC must squarely face the religiously-shaped components of culture and worldview, or demonstrate that religion is fully reducible to the components of culture identified by Hofstede, Hall, etc.

Theoretical Issues and Questions: Culture and Worldview; Postmodernism, Habermas, and Hermeneutics

As noted in the opening paragraphs, no single theory yet adequate accounts for all the complex interactions between culture, technology, and communication. First of all, as Rey points out, one of the central conceptual challenges for any theory—and thereby, any empirical study—is to provide a satisfactory account of what “culture” means. By operationalizing her definition of culture in terms of linguistic boundaries, Rey is able to provide her most intriguing empirical analysis of the contrasts between German- and Latin-speaking Swiss. Heaton’s use of Hofstede and others also shows the power of developing operational definitions (see also Smith et al. 1996). And both Heaton and Yoon add to this operational approach in part as they take up Bourdieu’s notion of *habitus*. Maitland and Bauer also