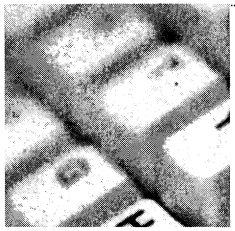

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THEMED SECTION: ON THE EDGE

# On the edge

## Cultural barriers and catalysts to IT diffusion among remote and marginalized communities

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**The articles collected here** were chosen from papers presented at the second biannual conference on Cultural Attitudes towards Technology and Communication (CATaC), held in Perth, Australia, 13–16 July 2000. Collectively, the articles explore the social, political and cultural contexts that inhibit and/or encourage the appropriation of IT among cultural groups very much at the edges of Western cultural influence and communication infrastructures.

The articles on black African students (Louise Postma) and Filipino virtual communities (Peter Sy) provide detailed insight into cultural groups that have only rarely entered the literature and consideration of Western IT theorists and researchers. The article on the Kelabit community (Harris et al.) similarly illuminates a cultural group that, to our knowledge, has yet to be taken up in IT literatures. By taking us to the edges of Western/Northern/industrialized world perspectives, these articles help us discern that no matter how far we may pretend that our viewpoints are universal – especially in the name of globalization and the diffusion of democracy in the 'electronic global village' – they are, in fact, neither global nor universal. Rather, our viewpoints are limited and, at best, stand alongside the distinctive worldviews of 'other' cultures. As Ess (2001) has argued elsewhere, if IT is to be implemented in ways that will prevent its spread around the globe from becoming yet another exercise in colonization and imperialism – the *users* of IT must become cultural hybrids and polybrids who are fluent in the worldviews and communication preferences of more

than one culture, so that our cross-cultural communications do not occur simply through the imposition of a single worldview and communication style. To become such cultural hybrids requires, in part, precisely our becoming aware of the diverse cultural values and communicative preferences articulated for us in these papers.

CATaC'00 continued the international and interdisciplinary explorations of the intersections of culture, communication, and technology begun at CATaC'98, held at the Science Museum, London.[1] Papers presented at the two conferences included both theoretical and praxis-based reflections. Coupled with reports on current research, these papers demonstrate that, contrary to (especially American) presumptions regarding technology as value-neutral, the technologies of computer-mediated communication (CMC) (including those that make possible the internet and the world wide web) embed the culturally specific values and communicative preferences characteristic of the countries and cultures of their Western origins. This becomes clear in a host of ways, but perhaps most dramatically when we consider the *conflicts* between Western CMC technologies and 'target' cultures that emerge in the efforts to introduce and diffuse these technologies in Asia. For example, presentations at CATaC'00 document conflicts between the values and communicative preferences embedded in and fostered by Western technologies, as well as such South Asian values as 'face-saving', high uncertainty avoidance (low risk tolerance), high collectivism/low individualism, and high power distance (Abdat and Pervan, 2000; Rahmati, 2000). These findings correlate with Maitland and Bauer's (2001) demonstration that low uncertainty avoidance and gender empowerment are significant cultural factors promoting diffusion of IT where these two characteristics are widely shared by Western but not Asian and many other non-Western cultures.

In the face of such fundamental differences in cultural values and communicative preferences, the introduction and diffusion of Western CMC technologies into 'other' cultures thus runs the danger of becoming a kind of computer-mediated colonization. That is, 'other' cultures are invaded, subjected and dominated by the injection of Western technologies with the assumption that such technologies are ostensibly necessary and unavoidable steps in economic development and social progress. Such colonization, of course, is no less vicious or effective simply because it is apparently less bloody than its 19th-century ancestors. Indeed, many have observed that such computer-mediated colonization is all the more effective and dangerous precisely because it appears to be non-violent and benign.

How to avoid such colonization – the colonization of the lifeworld, according to Peter Sy in this collection? Each of our authors shares this concern with colonization and each makes several concrete suggestions for avoiding computer-mediated colonization while still seeking to introduce

CMC technologies in a range of cultural settings. To describe these and other shared thematics, let us now turn to an overview of the articles themselves.

Roger Harris, Poline Bala, Peter Songan and Elaine Guat Lien Khoo provide an extensive socio-cultural analysis of the Kelabit (pronounced 'Kel-*ah*-bit'), a very remote cultural group in north central Borneo that is just now appropriating the technology and infrastructure that make connection with the internet and world wide web possible. In doing so, they introduce us to a number of shared themes, beginning with the problem of the digital divide. As the authors note:

> Nearly 75 percent of the population of Asia is reckoned to be living in rural districts. Dysfunctional patterns of technology diffusion serve to prevent the poor, mostly rural, majority populations of developing countries from benefiting from IT to the same extent as their educated urbanised compatriots. (p. 273)

This divide, in their view, is not destiny. They further observe that while 'the information revolution threatens to increase income inequity, nationally and internationally, it can provide tools, which can dramatically reduce isolation and poverty and alleviate its worst effects' (p. 273). What they describe as 'a pro-poor agenda of technology-improved access to education, health care and information' (p. 273), an agenda that is *possible* in developing countries. Indeed, IT *can* play a role in this agenda as IT 'can now be used to integrate rural and poor urban communities into economic life, thereby raising income, and improving their quality of life' (p. 273).

But these uses are not the inevitable outcome of introducing the technology alone. As each of our authors argue, technology is taken up in a specific culture, one that fosters a specific *social context of use*. Consequently, if IT is to fulfill its promise of equalizing information access, individuals and societies must make conscious choices and decisions regarding how IT will be implemented and used. In particular, Harris et al. note that:

> Appropriate regulatory services can be designed to encourage the provision of rural telecommunications on a commercial basis. Satellite networks, wireless communications, public telephones and community information centres, cyber kiosks, or telecentres are effective arrangements for reducing information inequality. (p. 273)

To decide in informed ways how to achieve more egalitarian access thus requires us to focus precisely on issues of *culture* as they affect efforts to introduce and diffuse CMC technologies. In this direction, Harris et al. bring to the foreground one of the central issues of IT from the perspectives of communication theory and anthropology. That is, the Kelabit are a textbook example of an *oral society*, in which face-to-face and high-context/

low-content styles of communication are primary. But they are encountering a communication technology that favors print/literacy and high-content/low-context communication styles – at least as currently implemented. In addition, one of the results of their survey helps make an important point regarding such socially oriented research. Among the Kelabit, Harris et al. found that 'current patterns of information actually received are dominated by religious information, with agricultural and family matters ranking next' (p. 292). Where *religion* is clearly a defining, fundamental element of culture – in this case, a dominant element of daily life and concern – CMC research on culture will have to pay more explicit attention to diverse religious beliefs and their impact on communication practices and preferences and, in turn, these impacts on available communication technologies.[2]

Finally, Harris et al.'s project of introducing CMC technologies to the Kelabit is exemplary insofar as it makes *social context of use* an explicit component; that is, attempting to determine the implications of introducing IT 'for communal identity, moral standards and other processes such as migrations and intermarriages' (p. 273). This explicit concern at the outset is matched by the recognition at the conclusion that to avoid possible negative impacts of new technology, it will have to be introduced and used in ways that consciously attend to appropriate or proper use. Such use is guided by the prevailing *values* of the community.

A crucial lesson emerges here. Again, contrary to prevailing (especially) American assumptions, technology is neither value-neutral nor overly deterministic. Rather, its use can be shaped by careful recognition of how cultural values and economic factors may direct the technology in either beneficent and/or culturally damaging ways. The social context of use for such technology needs to be constructed in a manner that will best preserve and enhance crucial cultural values.

In the second article in this collection, Peter Sy takes up the culturally distinctive notion of a *barangay* to explore Filipino virtual communities and social interactions mediated by IT. (A barangay is a social/cultural unit that evolved from the pre-Spanish 'boat community', or barangay, to the geopolitical unit of the status quo.) He argues that while at present IT tends to be instrumental in Western hegemonic encroachment into the Filipino lifeworld, some of its libertarian potentials are gaining ground in cyber-barangays that engender new mediatized 'focal things and practices' (p. 307). Sy refers to Albert Borgmann's (1984) notion of 'focal things and practices' as consciously chosen activities that help counter the ways in which new technologies tend to override traditional social practices, connections, and values.

Sy documents Filipino examples of the familiar point that new media have created social groups and connections that are no longer shaped by

space or geographical proximity – including what he calls the *cyber-barangay* made possible by CMC technologies of email and text-messaging. In doing so, he follows the lead of especially postmodern proponents of CMC to celebrate the cyber-barangay as overcoming the hierarchical structures of the current socio-political organization, replacing its center-periphery framework with one decentralized via interactive CMC technologies. In this way, the cyber-barangay echoes the precolonial barangay as more communal and relying on *oral* communication.

In particular, it is of interest to note that the Philippines are the 'texting' capital of the world. Filipinos fire more than 17 million messages a day, surpassing the total volume of all of Europe (p. 301). Sy documents the role of these and other CMC technologies in contemporary democratization movements of the Philippines, rooted in the EDSA Revolution of 1986. At the same time, however, Sy recognizes a number of significant obstacles to the democratization promise of CMC, beginning with the problem of the 'digital divide' between information haves and have-nots. This divide, shaped first of all by economic and educational disparities, is somewhat ameliorated in the Philippines through a *cultural* factor; that is, a greater sharing of CMC resources by those who do enjoy access. According to Sy, the typical Filipino net user shares his account with four to five other people.

Even more problematic for the promise of democratization is the 'electronic colonization' of the Filipino lifeworld, a transformation of the basic cultural and social practices and values accomplished through and for the sake of greater consumption of electronic media. This transformation is apparent, for example, in a governmental agenda of establishing 'computer literacy' for the sake of global competitiveness. In particular, Sy describes the conflict between the cultural values of many small but self-sufficient Filipino communities and those required by 'computer culture'. This conflict means that persons shaped by Filipino values experience information overload of a fundamental sort; they are ill-prepared to make sense of mediatized information, re-form their personal and social identities in the context of new information streams, and thus have greater difficulty 'reaching an understanding' in ways that sustain the traditional Filipino lifeworld.

In the face of such difficulties, Sy turns to Albert Borgmann's (1984) conception of 'focal things and practices'. While Borgmann originally developed the notion of focal practices as a kind of antidote to the ways in which new technologies tend to override traditional social practices, connections and values, Sy argues that information technologies themselves can be focal tools that facilitate focal practices if we choose to engage in them with such focal activities in mind. His examples here include the chatroom, mailing lists, and internet cafés. In the Filipino case, in particular, internet cafés are not only places for computer access, but also places for

poetry reading, relaxation, and face-to-face entertainment. In any case, to counter the colonization of the lifeworld, such technologically mediated social institutions are faced with a daunting agenda:

> The greater challenge of IT is to help provide communicative infrastructure that generates as many focal things and practices the barangay and the Filipino lifeworld would need to replenish its depleted stocks. As the precolonial barangay needed its community rituals, songs and dances, the cyber-barangay would need to meaningfully engage information technology and provide the focal things and practices to sustain its life and culture. (p. 307)

In this way, Sy articulates what is not simply a Filipino, but also a global problem. Will Filipinos – and the rest of us – be able to take up our new technologies in ways that will generate new forms of social and cultural life, and in ways that will genuinely compensate for the loss of practices displaced by such technologies? In other words, can we ensure that new technologies encourage complementary rather than supplementary social practices?

For his part, Sy sees hope for IT, especially insofar as it may be able to fulfill its democratization promise in the case of the Philippines. Citing the examples of the EDSA Revolution, a website established to defend free press, and internet cafés, Sy reminds us of Habermas's (1987) central question: 'How can the power of technical control be brought within the range of the consensus of acting and transacting citizens?' Sy is optimistic that IT can facilitate 'a discourse of negotiated utilization, power and consensus-building among Filipinos' (p. 308). But, as Sy notes, IT '*should* be brought to the fore of public deliberation, free from domination, to become a technology of citizenship' (p. 308–9; authors' emphasis). In philosophical terms, IT thus presents us with a moral and political imperative – a *should* – that requires deliberate decisions and actions on our part; Sy helpfully closes his article, in fact, with an extensive list of recommendations for ways of implementing IT in the Philippines so as to counter its colonizing impacts and fulfill its promise to serve as 'a power that affirms and celebrates the aspirations of communities and persons' (p. 311). In short, this fulfillment depends on our choices now about the deliberate design and carefully shaped use of such technologies.

In the third article of this collection, Louise Postma uses attitudinal surveys and interviews, interpreted through the frameworks of postmodernism and social constructivism, to demonstrate the ways in which indigenous peoples in South Africa take on the prevailing white/European cultural capital (see Bourdieu) that defines 'learning centers'. This culture, whatever its strengths and advantages, thereby runs counter to empowerment as a central project claimed for IT. As that cultural capital is appropriated by its users, the prevailing norms, including the basic

epistemology defining what counts as knowledge and what is worth learning, are thus taken up by students and used against their own original cultural norms and values.

As we have seen in the case of the Kelabit and the Philippines, the problem is, in part, one of infrastructure and economics: 'The problem in South Africa is that 1.3 million people (out of a total population of c. 60 million) have access to the internet, which indicates that the marginalized – the so-called information have-nots, the aliens in the global village, the non-Western learners – constitute the majority of the population of South Africa' (p. 316). But these radical disparities, Postma argues, are further reinforced by the *cultural style* of learning centers. The cultural style, not surprisingly, is defined by the heritage, values and epistemological preferences (that is, what is really knowledge, and thus what is important to know) of the prevailing white/European culture.

Like the Kelabit and the precolonial barangay, information transfer for blacks in South Africa has traditionally *not* been undertaken primarily through the vehicles of text and image (that is, those media currently best supported by CMC technologies) but rather through the technologies of *orality*, including dramatic performance and story-telling. Moreover, Postma draws on Friere's distinction between *situational empowerment* (an empowerment that comes through conformity to prevailing norms and values, as such conformity is rewarded by power within an established context) and a *critical empowerment* that recognizes the integrity and autonomy of diverse modes of individual and group styles, values, acts, etc.

Postma couples this distinction with that from Tönnies between a *Gesellschaft* and a *Gemeinschaft*. Her interview data demonstrate that the culture of the South African learning centers is that of a *Gesellschaft* – one that works in favor of *situational* empowerment. By contrast, the initial cultural norms of black adolescent students is one of a *Gemeinschaft*. In particular, she notes that a *Gesellschaft* culture that emphasizes knowledge acquisition through *individual reading in silence* runs directly counter to an initial culture that emphasizes knowledge acquisition through *group collaboration and discussion*. Knowledge is further acquired through *experience* – an experience evoked most strongly, for example, through the dramatic performance of indigenous stories. In this direction, as Postma notes in her conclusion, 'Individual excellence is still regarded as a Western preference' (p. 324). This is consistent with other research, beginning with Hofstede, that highlights the contrast and potential conflicts between Western emphases on the individual vis-à-vis Eastern and traditional emphases on the community. Where CMC technologies foster individualism (for example, if they are touted as ways of achieving *individual* excellence and achievement), then they are understandably perceived in more community-oriented cultures as a threat to a most basic cultural norm.

In this way, Postma's analysis brings to the forefront a now familiar point: the use of CMC technologies must be shaped by a consciously chosen *social context of use* if they are to achieve their promise of facilitating equality and liberation. In contrast with the more familiar claims that multimedia and CMC somehow intrinsically foster collaboration, Postma demonstrates that nothing in the technology clearly requires it to be used this way. Indeed, as one considers the usual experiences of email, researching on the internet, etc., the coherency between literate culture's focus on the individual reading in silence and potentially collaborative uses of CMC technologies becomes clear. Whether or not the technologies *can* be used in more collaborative, experiential ways, Postma demonstrates that, at least in the South African case, these technologies work in ways that reinforce the values and epistemological norms of the prevailing culture, offering only situational empowerment. This example thus runs directly counter to the usual claims that such technologies will foster greater collaboration. More dramatically, Postma's analysis makes clear that these technologies do *not* lead to the sorts of critical empowerment that include the preservation and enhancement of distinctive and diverse cultural and epistemological norms. To say it most bluntly, the South African case makes clear that CMC technologies can serve as technologies of cultural imperialism, rather than as technologies of liberation and cultural diversity.[3]

Nonetheless, Postma concludes by arguing that CMC technologies *can* serve more communitarian preferences and learning styles *if students are first taught to use CMC technologies in collaborative, rather than primarily individual ways.* Again, genuinely liberating implementations of the technology require explicit attention to *social context of use.* The technology does not irresistibly impose liberation. If it is to be used for these purposes, its users must be shown how it may be so used. This is consistent with the point made by Harris et al., that the Kelabit intend to take up CMC technologies in ways that are consistent with their more group-oriented, oral culture. Such use, however, requires conscious choices and appropriate education: it will not come from simply throwing computers in front of people and hoping they will somehow figure it out on their own.

Given the various ways in which each of these articles demonstrates that CMC technologies, far from being value-neutral, embed and foster the values and communicative preferences of their cultures of origin, the larger question returns in force: how to avoid electronic imperialism? In addition to the suggestions articulated here, a number of other suggestions have emerged from our CATaC conferences. One of the most fruitful, in our view, is the model for CMC diffusion first introduced at CATaC'98 by Thai philosopher Soraj Hongladarom (1998, 2000). Hongladarom draws on Michael Walzer's distinction between 'thick' and 'thin' cultures, observing that at a global level the internet may constitute only a 'thin' culture. This

'thin' culture – like air travel and international conferences themselves(!) – allows for communication across diverse cultural boundaries, but does not necessarily impose itself on participants at a deeper level. 'Thick' culture embodies the most fundamental cultural values and preferences that shape everything from one's primary language and preferred diet to the values and beliefs that define the 'normal' range of accepted behaviors, goals, acts, etc. Hongladarom observes that our 'thick' culture may remain intact in the face of participation in a global but thin culture.

Also, especially as we become cultural hybrids or polybrids (that is, persons familiar with and, to a degree, fluent in the basic values and communicative preferences of more than one culture), we are thus able to negotiate with others across cultural differences in ways that respect and preserve these fundamental differences, rather than mow them down for the sake of a single cultural style. But this means, in part, that we must become more deeply aware of diverse cultures and peoples if our use of the internet and the web is not to become an inadvertent but nonetheless overwhelming force for cultural imperialism. The articles collected here are intended as contributions to just such an awareness. To begin with, they document peoples and cultures outside the cultural orbits that currently dominate the internet and the web – namely, the cultures and peoples of the industrialized/developed worlds, who are largely in the North and West (that is, the USA, Canada, the UK and Western Europe). Indeed, as these articles explore people at the margins of the industrialized West – the Kelabit of Borneo, the rural Filipinos, and the indigenous South Africans – they remind those of us in the North and West that our cultures and material lifestyles are not 'normal' in either a statistical or moral sense. That is, they remind us that our cultural values, communicative preferences, and material wealth are shared by a remarkably small percentage, perhaps no more than 7 percent of the world's population, if we consider simply those who use computers and CMC technologies. At the very least, such recognition should give us pause, and encourage us to reflect very carefully indeed whether we can assume the universal validity of our own cultural values, communicative preferences, etc., as these are embedded in and enabled by CMC technologies. Or whether we can assume our basic values and communicative preferences are in fact culturally limited.

Both philosophers and religious teachers have long recognized that violence and dominance require an absolute confidence in one's own *rightness* – in philosophical terms, in the universal validity of one's basic beliefs and values. It is our hope that these articles will challenge such confidence, should it reside unquestioned in the minds of our readers. In other words, to again borrow from the philosophers and religious teachers, we hope that these articles will inspire reflection and a concomitant *humility* that recognizes that one's own beliefs and values, no matter how

fundamental, no matter how well considered, may not yet be certainly suited to or needed by the great many 'other' peoples of this planet. On the basis of such humility, we believe, we can better carry forward our conversations with others, whether through the marvelous, but potentially imperialistic technologies of the web and the net, and/or through other, perhaps more humble, more accessible and generally more shared means. And by helping our readers recognize and make explicit the diverse values and cultural preferences that distinguish Western CMC technologies and users from other peoples and cultures, we hope these articles contribute to their conscious reflection on values and preferences. We hope they contribute to the development of beliefs and behaviors that will avoid imperialism (inadvertent or otherwise) and instead foster the preservation and enhancement of diverse cultural values and preferences.

## Notes

1 For additional information on these conferences, see http://www.it.murdoch.edu.au/~sudweeks/catac00)

2 See Rahmati (2000), whose work on the contrasts between Malaysia and Australia is an example of CMC research that includes explicit attention to religious factors. (Given the central role of religion, this research is desperately needed but extraordinarily rare.)

3 Postma's analysis can be fruitfully compared with Sunny Yoon's (2001) analysis of CMC in Korea. Yoon likewise uses Bourdieu's notion of cultural capital, and arrives at similar conclusions regarding the anti-democratic implementation of CMC technology in Korea, especially as the social context of use is shaped by commercialization.

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