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CULTURAL CONTRADICTIONS OF THE ANYTIME, ANYWHERE ECONOMY

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ABSTRACT

Technology-aided ubiquity and instantaneity have emerged as major goals of most information technology providers and of certain classes of users such as “road warriors”. There are genie-in-a-bottle type near-magical qualities in technologies that promise anytime, anywhere access to information and services. While the complex science, systems, and economics of such technologies receive the attention of industry executives and researchers, the social and cultural aspects of these technologies attract less attention. This paper explores the oft-contradictory promises and pitfalls of anytime, anywhere technologies from a cultural standpoint. It makes suggestions for reinterpreting these technologies for greater human good.

THE PROMISE OF CONNECTED UBIQUITY

At the start of this new millennium, everywhere you look, one or another high-tech company is promising the world at your fingertips: anything, anywhere, anytime, for any reason, and through any media. Here is a sampling:

- Imagine a world where, when you think it, you are linked to it — to manage your life, to consult, to transact, to travel simply, to do business creatively, or to share an idea or a joke with a friend. Imagine a world where your Personal Area Network serves you with what you need when you need it, allowing you to do more with your life. (From a Motorola website)
- The mass proliferation of e-services...these services will be modular and combine and recombine to solve problems, complete transactions, and make life easier. Some will be available on websites, but others will be delivered via your TV, phone, pager, car, email inbox, or virtually anything with a microchip in it. Some will even operate behind the scenes, automatically working on your behalf. (From a Hewlett-Packard website)

- With features such as Instant Messaging and real-time data and videoconferencing, Microsoft Exchange 2000 Server enables access to the people and information you want, anytime and from anywhere. (From a Microsoft website)
- Nokia is paving the way to the Mobile Information Society. This will transform everyday life, giving users a newfound freedom through intuitive applications based on Nokia's advanced human technologies and infrastructure. (From a Nokia website)
- Intel believes information will continue to become more specific, personalized, and scaled to meet the requirements for the portable, mobile environment. (From an Intel website)
- Nokia and Compaq combine forces for exciting wireless solutions: enable mobile enterprise employees to access the information they need fast, use the corporate intranet from any location, get voice and data connectivity anywhere, anytime. (From a Compaq website)
- Mobile Internet is about to enhance our daily lives in lots of ways: changing the way we keep in touch; the way we access news, information and entertainment; the way we shop, pay for things and manage our money – all from a mobile device. (From an Ericsson company website)
- AOL is approaching the wireless world with much the same system that it used to conquer the wired Internet: “First communications applications, then content applications, and finally commerce applications.” (From an article about AOL)

There are genie-in-a-bottle type near-magical qualities in these technologies that promise anytime, anywhere access to information and services. The complex science, systems, and economics of such technologies receive considerable attention from industry executives, journalists, and researchers (see, for example, McGrath 2000). The social and cultural aspects of these technologies, however, attract less attention. In cultural terms, the potential and promises of these technologies of ubiquity and instantaneity often have contradictory elements. This paper explores some of the cultural contradictions of the technologies of ubiquity and instantaneity.

The approach adopted is critical at first and then constructive. The premise is that the ameliorative aspects of the technologies of ubiquity and instantaneity can be enhanced through a better understanding of their cultural dimensions. The rest of this paper has five parts. First, a simple schema is presented to categorize the promises of these emerging anytime, anywhere technologies. Second, the concepts of ubiquity and instantaneity are explored. Third, from the point of view of consumers, some framing dimensions are introduced to understand who – in the overall global context – may adopt the emerging technologies of ubiquity and instantaneity in their current forms and how the reach and consumer benefits of such technologies may be enhanced under different development scenarios. Fourth, these technologies are reinterpreted in terms that are more consumer

oriented and perhaps somewhat less technology oriented. Fifth and finally, some concluding remarks are offered.

PROMISES, PROMISES – AND PATTERNS

The entire edifice of the New Economy is built on a foundation of promises, and this is very strongly the case for mobile technologies. Exploring the range of user benefits promised by the developers of new mobile technologies, two main themes and two subsidiary themes stand out. Both the main themes are about power – power in personal

Box 1: The Road Warrior

I'm just a pervasive computing kind of guy – computing done anywhere, anytime. I have 20 more minutes to pluck away at the keyboard before they force us to shut down our notebooks for landing.

It's been a comfortable flight as I listen to "Always" by the band New Jersey through my noise-dampening headphones. There is a layover in Chicago. No need to recharge my laptop because I travel with three extended-life batteries.

I've registered my pin with the GTE Airfone so I can be reached in flight. In Chicago, though, I power my cell phone up. It's a Nokia Communicator 9000i. Bulky at 2.5 pounds, you flip the lid, and a world of connectivity springs to life. Call me, fax me, e-mail me.

I can cruise the Web through its small screen. I can print documents by pointing the infrared at a printer. I keep my contacts and calendar on it, or just type notes on the keyboard. Overseas, I take out the SIM card and plug in into a phone over there. When you call my Seattle number, it rings me in Europe.

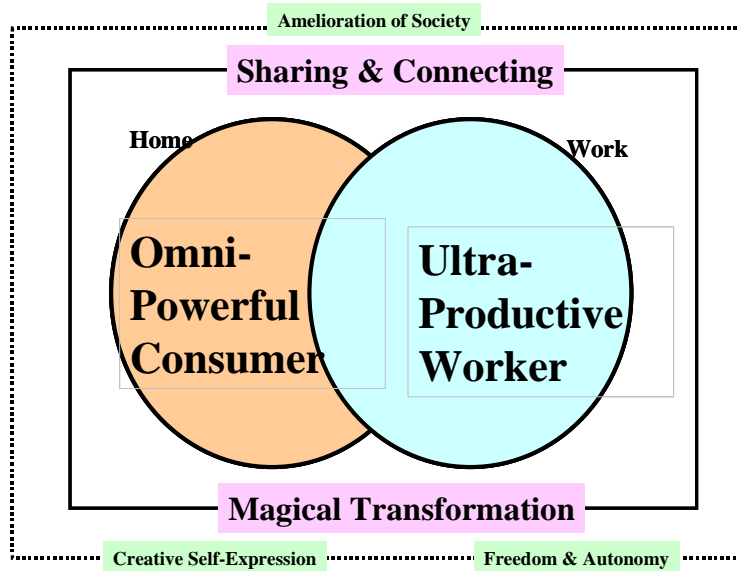
It's also an alarm clock, currency converter and calculator. Everything but a razor. Maybe in the next release.

Source: Fine (2000)

life and power in work life. The hero of the first theme is the omni-powerful consumer who, with the personal communicator in the pocket or purse, has all manners of information and services at beck and call. The hero of the second theme is the empowered, ultra-productive employee who can orchestrate business processes from any place and any time zone. The prime target of the new technologies is the "road warrior" – an individual who not only has but craves ubiquitous and instantaneous connectivity (see Box 1).

A major impact of new information technologies has been the interpenetration of lifespaces: work life and home life blend into each other (see Figure 1). Dan Fine, the road warrior portrayed in Box 1, goes on to give two examples where mobile

Figure 1: Themes associated with Mobile Technologies



technologies helped him to do family related things from remote locations. Millions of people such as Dan Fine lead a parallel existence on an electronic plane where the separation between home and work is no more than that between different folders in the storage media of their computing devices. For mobile technology firms, people who blur the home-work boundaries with their mobile technology gadgets and services are the prime targets. Figure 1 shows the two main themes of mobile technology in the central intersecting circles – orbs that represent the two interpenetrating lifespaces of “home” and “work.” The secondary themes of “Sharing and Connecting” and “Magical Transformation” constitute a contextual frame that provides a palpable level of social justification for the new technologies of ubiquity and instantaneity. The minor themes of “Creative Self-Expression,” “Freedom and Autonomy,” and “Amelioration of Society” constitute a tertiary, idealistic frame that imparts an abstract but not-yet-realized level of justification to such technologies. In Figure 1, font sizes of the themes reflect their importance. It is clear that on an axis of instrumental-to-noble, the central themes of mobile technologies are towards the manifestly instrumental end while the minor themes are towards the noble but nebulous end.

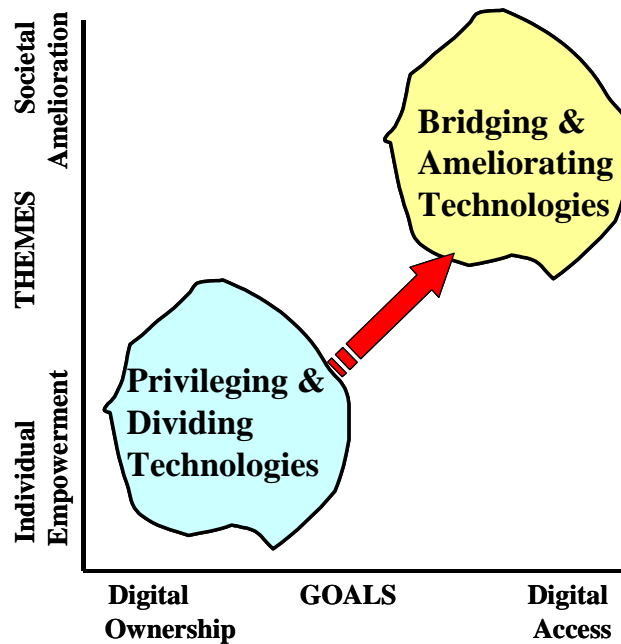
UBIQUITY, INSTANTENEITY, TECHNOLOGY AND HUMANITY

The central concepts of the new mobile technologies – ubiquity and instantaneity – can be viewed from an individual as well as a social perspective. From an individual perspective, the desire for ubiquity and instantaneity is an age-old one. Humans have

dreamed of, or stood in awe of, the godlike abilities to be omnipresent and omniscient. The new mobile technologies bring these divine (some may say diabolic) capabilities tantalizingly within the reach of mere mortals.

From a social and historical perspective, from the commencement of modernity, political and economic forces have opened up ever-increasing spaces for mobility for masses of people (Virilio 1986, 1995). Technology has played a central role in this – by enabling rapid physical movement by surface (and later by air) and as well as by facilitating

Figure 2: The Transformational Challenge for Mobile Technologies



instantaneous communications across space. In many paradoxical ways, the steadily emancipating qualities of these technologies of ubiquity and instantaneity have also steadily implicated humans in inextricable webs of acceleration, freneticism, and fragmentation (Baudrillard 1997, Virilio 1995, 2000).

From a political-economic standpoint, the technology-induced acceleration of acceleration, frenzied pace of freneticism, and fragmentation of fragmentation often seem to benefit the providers of such technologies as well corporate adopters of such technologies who discover new avenues of boosting productivity of their employees through these technologies. This is the why the underlying thematic of new mobile technology is consumption and productivity-focused in a central and concrete way and refers to emancipating and ameliorative qualities in only minor, tangential ways (see Figure 1).

CONNECTEDNESS IN A DIVIDED WORLD

To understand the new mobile technologies in a global context, we have to bear in mind that technology-aided connectivity is a privilege of the minority. While it is true that some advanced nations such as Finland have near-universal mobile connectivity, for most of the world this is not the case. The preexisting “industrial divide” of the past couple of centuries is now getting layered over with a new “digital divide” (Gruenwald 2001). Juxtaposing the widening digital divide and the rapid diffusion of mobile technologies, some interesting observations can be made:

- While the digital divide between rich and poor countries in terms of PCs connected to the Internet remains very wide, there is evidence to suggest that mobile technologies are finding rapid acceptance in the developing world. In the late 1990s, for example, mobile phones in the poorest nations of the world grew at a rate 2.5 times that in the richest nations, and these phones were more likely to be digital-ready than in any category of advanced nations (Dholakia and Kshetri 2001).
- In the developing nations, access to digital communications is often through shared media rather than through individually owned media. This is not only true for PC-based access (through cybercafes, for example) but also in the case of mobile phones. For example, in Bangladesh, Grameen Telecom has a goal of having a shared, rentable mobile phone in every village (Gruenwald 2001).
- The business models of providing digital access are quite different from the business models of promoting ownership of digital media and individual subscription to digital services. “The moment you separate ownership from access, the opportunities are huge,” according to C. K. Prahalad of University of Michigan (quoted in Gruenwald 2001).

The transformational challenge for the developers and marketers of mobile technologies is to bring about major changes in both the central themes as well as the primary goals of mobile technologies (see Figure 2). The theme of “individual empowerment” is fine for the advanced, elite segments of the market but technologies featuring such a theme will not revolutionize the everyday life of most people in the world. Similarly, the goal of “digital ownership” – of making people technology-laden versions of the cartoon character “Inspector Gadget” – may appeal to select segments of “road warriors” but is not relevant to the mass of humanity. By shifting to more ameliorative themes (including the quest for true autonomy, not gadget-induced illusion of omnipresence), and to the simpler goal of access rather than ownership, new mobile technologies could have the potential to revolutionize the everyday life of vast segments of people in the world. The challenge is to liberate the new technologies from the Virilio-esque matrix (Virilio 2000) of techno-frenzy and the transform them into tools for humanity.

REINTERPRETING THE TECHNOLOGIES OF UBIQUITY AND INSTANTANEITY

The challenge of transforming mobile technologies in fundamental ways sounds appealing, but is it realistic? After all, the bottom line for the technology developers and marketers is the “bottom line.” In fact, the technology-induced ubiquity and instantaneity have had a major impact on the global financial markets and this has made the technology firms quite myopic in terms of their goals and strategies. The implication is that suggestions for “visionary transformation” of the themes and goals of mobile technologies have to be at least cost-neutral and preferably profitable for the technology firms.

Some technology companies have started the process of reinterpreting the role of technology in contexts that are more global than the “road warrior” segments of advanced

Box 2: HP’s World e-Inclusion Program

HP’s “world e-Inclusion” business strategy seeks to broaden access to the social and economic opportunities in developing countries – markets that are traditionally excluded from strategic considerations. The focus is on sustainable business ventures that benefit the rural poor in Africa, Asia, Central and Eastern Europe, and Latin America. Some of the key principles underlying this strategy are summarized below:

e-Inclusion Principle	Explanation	Illustration
Focus on people, not technology	Technology must operate in conjunction with business, economic, political, and social systems. Technology providers need to get close to the new potential customers, partners, employees and inventors in the developing world to seek or invent local solutions.	HP’s strategic cooperation with the Foundation for Sustainable Development of Costa Rica to develop and implement telecenters for villages in remote areas without traditional infrastructure. Housed in recycled shipping containers, these Little Intelligent Communities (LINCOS) are satellite-operated, solar-powered, and equipped with HP hardware and high-speed Internet connections.
Develop strong global and local partnerships	HP cannot do it alone. Others can bring knowledge, experience, and skills that are critical to discovering new business approaches, cultivating markets, and growing profitable revenue streams for the long-term.	In Senegal, HP partnered with Joko Inc. to develop community technology centers in low-income urban and rural areas to develop and sell an array of e-services. The local communities identified their needs such as computer training, e-mail, word processing, access to credit, information about crops and pricing, or selling handicrafts on-line.
Projects should be sustainable	If external sources of support are removed, the project should be able to support itself and continue.	Grameen project in Bangladesh is developing village self-sustaining telecenters with an initial focus on telemedicine and the efficient transfer of funds, especially for individuals and small businesses.

Source: <http://www.hp.com/e-inclusion/>

nations. One of the pioneers in this regard is Hewlett-Packard (see Box 2). While HP is attempting to promote a grand and global vision, this is not the only approach for reinterpreting and reorienting new mobile technologies. In fact, technology firms can achieve good results by applying some simple metrics throughout the development and marketing cycle. The following are some suggestive metrics that new technology developers and strategists can employ, grouped into “autonomy,” “creativity,” and “amelioration” categories:

- AUTONOMY METRICS
 - Will this technology help me set my own agendas and schedules?
 - Can I control electronic access by others into my space without offending or alienating them?
 - Will this technology help me to work in ways that I like to work, without feeling corporate pressures for goal-focused productivity?
 - Will this technology help me to consume in ways that I like to consume, without feeling like a constant target of corporate marketing efforts?

- CREATIVITY METRICS
 - Can I make this technology function in ways that I want (and by that I don't mean merely the ability to choose my ring tone)?
 - Can I (re)design and mold this technology according to my wishes?
 - Can this technology help me express myself in ways that are not programmed and patterned?

- BRIDGING AND AMELIORATION METRICS
 - Does this technology provide the possibility of low-cost access without the need for substantial private expenditures on gadgets and services?
 - Does this technology offer access equally, regardless of income, race, gender, education, climate, geography, etc.?
 - Can this technology provide income and a competitive edge to those who find their products and services in a situation of declining global demand?
 - Does this technology have the ability to improve human development factors such as health and literacy?
 - Does this technology promote and support social and political justice (and help people to counter social and political oppression)?

While the “bridging and amelioration” category is social in nature and relevant mainly to the disadvantaged masses on the indigent side of the digital divide, the “autonomy” and

“creativity” metrics are individual in nature and are relevant to technology users all over the world, including the gadget-rich road warriors. The “winning combinations” that could really boost the “bottom line” of technology firms are those that combine and blend all metrics.

CONCLUDING REMARKS

The technological juggernaut of providing mobile connectivity on a global basis has started rolling. In the next few years, it will bring about massive changes in the ways people live and work. The new mobile technologies are infused richly with promises of ubiquity and instantaneity, which in turn promise a world of unimagined individual freedom and social connections. The realities of such technologies are often at odds with their promises. The social and cultural contradictions of new mobile technologies of ubiquity and instantaneity can be summarized under these three headings:

- **PHILOSOPHICAL LEVEL:** Ubiquity and instantaneity appear to be benign conditions of human existence but could (and often do) transmogrify into foreboding, quasi-totalitarian, panoptic conditions of existence (Dholakia and Zwick 2001).
- **INDIVIDUAL LEVEL:** The technologies of ubiquity and instantaneity promise unbounded autonomy and simplification of life but often result in inescapable dependencies and implication of the users in complex matrices of patterned consumption and Chaplinesque (a la “Modern Times”) cycles of production (Firat and Dholakia 1998).
- **GLOBAL LEVEL:** The technologies of ubiquity and instantaneity promise a world of borderless connectivity that would bridge the chasm that we call the “global digital divide,” but there are few incentives for technology firms or government agencies to connect up the masses of digitally excluded humanity.

These contradictions are strong and serious, but they are not intractable. Some corporations are attacking them through visionary strategies. A lot more could be done in terms of overcoming such contradictions if new individualistic and social metrics are employed during the design and marketing cycles of the new mobile technologies.

REFERENCES

- Baudrillard, Jean (1997), *Fragments: Cool Memories III, 1990-1995*, translated by Emily Agar. London and New York: Verso.
- Dholakia, Nikhilesh and Detlev Zwick (2001), “Privacy and Consumer Agency in the Information Age: Between Prying Profilers and Preening Webcams”, *Journal of Research for the Consumer*, Vol. 1, No. 1, 2001. <http://www.jrconsumers.com/>

- Dholakia, Nikhilesh and Nir Kshetri (2001), "Will M-Commerce Bridge the Global Digital Divide?" Working Paper, Kingston, RI: Research Institute for Telecommunications and Information Marketing (RITIM).
- Fine, Dan (2000), "Call me, fax me, e-mail me – anytime, anywhere," *Puget Sound Business Journal (Seattle)*, July 31, <http://seattle.bcentral.com>
- Firat, A. Fuat and Nikhilesh Dholakia (1998), *Consuming People: From Political Economy to Theaters of Consumption*, London and New York: Routledge.
- Gruenwald, Juliana (2001), "Seeking Answers to the Global 'Digital Divide'," *Interactive Week*, January 14, <http://www.zdnet.com/intweek/>
- McGrath, Peter (2000), "Plenty Wrong with WAP," *Newsweek*, December 18, 82.
- Virilio, Paul (1986), *Speed and Politics: An Essay on Dromology*, translated by Mark Polizzotti. New York: Columbia University – Foreign Agent Series.
- Virilio, Paul (1995), *The Art of the Motor*, translated by Julie Rose. Minneapolis: University of Minnesota Press.
- Virilio, Paul (2000), *The Information Bomb*, translated by Chris Turner. London and New York : Verso.