Mobility Special: Plugged into it all

By Richard Waters
Published: November 11 2005 11:55 | Financial Times

To listen to a group of students at the University of California’s Berkeley campus talking about their obsessive communications habits, you would think you had stumbled into a meeting of recovering alcoholics. Rich Brown, a graduate student at Berkeley Haas School of Business, confesses to being forced into drastic action the previous evening when, at 10pm, it was time to get down to some serious work. An instant messaging exchange had to be terminated: e-mail, a constant companion, was shut down. “But it's a compulsion,” he says. “I had to check my e-mail half an hour later. You have to look at it again.”

“I think it's horrible,” says Christian Oestlien, a fellow student and self-confessed e-mail fanatic. “Once you get in, you can’t get out.”

Tools such as e-mail and instant messaging may have been around since the dawn of the internet era, but it has taken a wireless communications revolution to turn them into a constant and inescapable fact of life for a growing part of the population. WiFi networks - a low-cost technology that can beam large chunks of data over short distances using part of the radio spectrum that was previously the preserve of gadgets such as garage door openers and baby monitors - assure the digitally addicted of a permanent and ubiquitous connection to the wider world. At the same time, more versatile mobile phones have turned text messages into the communications tool of choice for teenagers in Asia and Europe, if not yet the US, while also bringing e-mail to many handsets. For those in the grip of these new networks, life has changed. There’s no such thing as solitude any more, no fragment of time that cannot be filled with digital chatter.

Students are less likely to work in the library, says another Haas student, Sung Hu Kim - it’s one of the few places on campus where the WiFi signal is weak. Work happens anywhere there is wireless access and a comfortable place to sit: on the grass outside the faculty buildings, or slouched in the student lounge. In the lecture halls, meanwhile, laptops are kept open - unless a professor objects - and instant messaging and e-mail services are left connected, to be checked fleetingly and often.

Even these self-confessed communication junkies may not be ready for the full-time commitment that avid exponents of texting often display. Richie Teo, a graduate student
from the Philippines, says he’s surprised by the lack of texting among his American counterparts: back home, with his techno-savvy friends, he was accustomed to getting and sending dozens of messages a day.

“If I’ve been to sleep and don’t have at least four messages when I wake up, I feel no one loves me,” he says. The aghast looks of his peers suggest that these are depths of communications addiction that even they have yet to plumb.

For students at campuses across the country, being permanently connected means rethinking where and when to do things. On the other side of the country, the Massachusetts Institute of Technology near Boston has just plugged in the last of its 2,800 electronic nodes that will bathe its 168-acre campus in high-speed wireless internet access. The Steam Cafe (sample menu item: Malaysian fish curry with organic short-grain brown rice) is the new place to hang out while working, says Carlo Ratti, a research scientist at MIT.

“This used to be only used three hours a day: now it’s 24 hours a day,” he says. Classrooms and libraries are emptier as a result.

Hooked to this network, the possibilities multiply. MIT plans to let its students continually broadcast their whereabouts to anyone in their personal social network, says Ratti. Overlay that information on a map of the campus or town, and you could keep track of your family or friends all the time. What happens when you free students of the need to sit in lectures - or office workers of the need to be at their desks - and place them instead in a free-flowing, virtual community? What are the implications for the way people work, the way social and political life is organised, and the way cities are run? “Real estate value will be based not on the square footage, but on usage,” predicts Ratti. “We won’t be working from home - we’ll be working from anywhere.”

WiFi networks are starting to creep over civic space as well. Cities from Philadelphia to Seoul are planning citywide networks that would give low-cost or free internet access to residents. These short-range networks are part of an invisible electromagnetic mesh that is settling over everything. Together with the new souped-up networks being launched by cellphone companies, they are part of a rush to turn the radio spectrum into an all-enveloping blanket of digital communications and new wireless media.

Of course, predicting technology revolutions is foolhardy. They never pan out the way that the visionaries predict and seldom yield the sort of instant new markets of which business planners dream. Telecommuting has been predicted since the beginning of the PC era and seems as quaint these days as the personal jetpacks that we were all meant to be wearing sometime around the end of the 20th century. Ubiquitous mobile networking may yet prove to make just as little impact on our daily habits.

Yet it is hard to deny the extent to which mobile phone communications have already crept into many, if not most, corners of our lives: children texting from the bus stop; suburban streets clogged with housewives on the phone while at the wheel (at least in countries where it is still legal); executives bowed, fetishistically, over their BlackBerries. In equal parts liberating and intrusive, the mobile phone has changed the way many people relate to their work, or to their friends and loved ones. It seems a fair bet that its next incarnation will have a much deeper and wider impact.

Most technologies, as they reach a bigger sphere of people, become less widely used, says Glenn Woroch, an economist at the University of California at Berkeley. That has not been the case with mobile phones. The amount of time the average person spends with his or her mobile is going up, he says, even as the network expands.

This is the beginning. The mobile phone is already morphing into an all-purpose messaging device, capable of catching and transmitting many of the minutiae of daily life, from the short snippets of text messages to impromptu photos. Laptops on campuses such as Berkeley and MIT are becoming windows into digital media.

“This is like watching the beginnings of the world wide web,” says Dick Lampman,
director of Hewlett-Packard’s research labs. Trying to predict exactly how this personal communications revolution is going to change your life is likely to lead to the same kind of hyperbole - and mistakes - that characterised the early dotcom days, he says, but “you can see the early pieces of it, joined up, in the mobile phone world”.

The virtual world is no longer behind a TV screen or on the PC: it’s with you all the time. The persistent chatter and, increasingly, the songs or TV shows being streamed over these networks are starting to seep into many aspects of everyday life.

To understand just how deeply mobile communications may eventually affect your life, it helps to consider the habits of Japanese schoolgirls.

What Kenichi Fujimoto, a researcher at Keio University in Japan, calls the “schoolgirl pager revolution” remains one of the most revealing technology events of recent years. Simple numeric pages, designed for business use, were taken up in the early 1990s by teenage girls, who used them to send coded messages to each other. That became one of the models for the short text messaging that now seems to define youth culture.

It was a seminal moment for the technology industry, a sign that the forces of technological innovation had been turned on their head. New technologies had always been created for business use first, on the assumption that employers would be prepared to pay for gadgets that made their workers more productive. That was how the first brick-like mobile phones got their start. Now, though, it is consumers - often teenagers - who are the early adopters of many new technologies. The rest of us follow their lead.

That suggests that the place to look for signs of what we’ll all eventually be doing with our mobiles is best discovered among young people on the streets of Tokyo, Seoul or Helsinki.

The evidence is hopeful. Some of the early media coverage of mobile communications in Japan, as elsewhere in the world, pointed to a futuristic dystopia, a place where ubiquitous personal communications would cause the disintegration of social norms. Some Japanese girls were found, for instance, to be using their mobiles to engage in prostitution with middle-aged men. Newspapers were full of stories of mobile dating services that could connect two people who happened to be walking down the same street at the same time.

In a stable, paternalistic society, the power that the mobile gave to the young amounted almost to a social revolution, according to Fujimoto. Ko-gyaru, as the new band of brash, fake-tanned and dyed-blond schoolgirls were called, represented a direct challenge to the fathers who held social power. Just talking loudly on a mobile phone on a bus or a train amounted to a rebellion, writes Fujimoto. The mobile-wielding, mini-skirted Japanese schoolgirl became a symbol of the technology’s power to disrupt social norms.

Other early signs of how the mobile might change behaviour added to this sense of social norms unravelling. The ability of groups of people, operating independently, to coordinate their actions appeared to create the chance for political action that welled up from below, outside normal institutional bounds. “Smart mobs” or “flash mobs”, the name given to these ad hoc meetings, were at once empowering and scary.

And even if you discounted revolutionary visions like these, there were more prosaic reasons to fear mobile phones. They are, after all, a distraction, just another thing to divert the attention of multi-tasking youth or steal away what little remains of our free time.

In fact, the evidence of how most Japanese teenagers use their mobiles suggests that pervasive communications are strengthening social bonds, not breaking them down.

Mizuko Ito, an associate professor of Keio University, has applied the techniques of anthropological research to the study of the use of technology among Japanese youth and concludes that mobile networks are creating a new form of “full-time intimacy”. Most
people use their phones to stay in close contact with between three and five loved ones or friends, she says. Sociological literature, which has a habit of sprouting important-sounding titles for any new phenomenon, has invented a name for it: “tele-cocooning”. The very nature of much of the mobile texting that goes on suggests that its real intention is to act as social glue, maintaining intimate connections between people: as a glance at any teenager’s stream of text messages shows, it is seldom to communicate meaningful information.

Text messages are used to fill the dead time, a form of small talk that fits into the gaps in people’s lives. Much of the communication is fragmentary and inconsequential. It operates, at a micro-level, as a constant stream of pointless babble.

This persistent, low-level form of contact is really all about maintaining a sense of constant “presence” with people who are elsewhere, says Ito. The virtual world created by the mobile is a shared social space, something always with you: the point is to be always on and always connected, even if right now you have nothing much to say. That suggests that the seemingly pointless, reflexive text messages that pass back and forth are primarily a way to reinforce a social bond and a sense of presence.

Ito compares this to the conscious and unconscious body-language that passes between people who are in the same physical space. The seemingly pointless short text message, she writes, is “a sigh or smile or glance, a way of entering somebody’s virtual peripheral vision”. It may not lead to a conversation, but it is a way of maintaining contact. Users of instant messaging on PCs are already familiar with a version of this phenomenon: it is the sense of presence that comes from the buddy list.

Armed with this persistent connection to a small group of people, Japanese teenagers have learnt how to move smoothly between the real and virtual worlds, says Ito, who co-edited the book Personal, Portable, Pedestrian: Mobile Phones in Japanese Life, published by MIT Press. They draw their mobile relationships into the foreground when they have time to kill or something to communicate, then push them into the background again when something more immediate claims their attention.

Of course, there are new social obligations that come with all of this. There is an expectation that intimates should be “available for communication unless they are sleeping or working,” she says. And even working is not always an excuse - certainly not classwork, given the way many Japanese children keep their phones on their desks at school. Japanese teenagers say that messages have to be returned immediately, or at least within 30 minutes, or a social convention has been violated. Forgetting to take your mobile with you or letting the battery die are considered among the greatest of social misdemeanours.

Texting has emerged as a way to make mobile communications more constant and pervasive, while also reducing the disruption to the experience of “real” life that tele-cocooning implies. Sending a text message, for instance, means you no longer have to annoy the person sitting next to you on the bus by talking on your phone. In Japan, texting has become the socially acceptable way to stay in contact while on public transport.

It has also become a way of easing the transition from the real to virtual world. Before dialling someone’s telephone number or in the run-up to a face-to-face meeting, a stream of text messages lays the ground. “You don’t make voice calls without checking availability first,” says Ito. “The ringing telephone is quite a rude thing.” With proper texting etiquette, the phone only rings when you want it to, and face-to-face meetings are choreographed by an elaborate ritual of advanced messages.

These persistent, mobile-powered social networks fit into a view of modern life that has been gaining acceptance in academic circles. It holds that, contrary to what you may have thought, we are not living in the Information Age: we are living in the Networked Age.

Expressed most fully by Manuel Castells, a Spanish sociologist, the network-centric view
of life suggests that we each exist as a “node”, or an element, in many intersecting networks - of family, work and friends. According to this view, man is defined by the networks of which he is a part. It is no longer what you know that counts: it is who, or what, you connect to. Thanks to mobile communications, we can all soon expect to be connected permanently.

Teenagers may be happy to live in this permanently connected world, but what about those who remember life without the repetitive sound of novelty ringtones?

A decade after mobile phones became commonplace, attitudes are still sharply divided. “The absence of constant connectivity and multi-tasking is a deprivation for the young,” says Lampman, at Hewlett-Packard. For many others, the ability to unplug can seem an essential precondition for sanity in the modern world. For the average office worker, the same sort of social pressures that have been at work in shaping Japanese youth culture are also starting to influence working practices and impinge on home life. The power to pick up - and respond to - e-mail and messages from anywhere is blurring the lines between the office and the rest of life.

For the average executive in Silicon Valley, this has lengthened the work day, says Steve Barley, a professor at Stanford University who specialises in the organisation of work and the impact of technology. He thinks this could be “the equivalent of three and a half extra weeks a year just communicating outside work: that's more vacation than most people get” (at least in the US). Yet by his estimate, this has done little to make workers more productive.

The main reason for all these extra unproductive hours “seems to be a fear of what will happen if you don’t check your e-mail before work and in the evening”, he says.

Paranoia is rife. Among the connected white-collar classes, it is now no longer done to leave the mobile - or the BlackBerry, or Treo - behind or let the battery die.

Permanent access to multiple forms of communications is also producing an addiction to multi-tasking among members of the professional classes that is inevitably eating into the quality of work, according to Barley. Taking part in a conference call, for instance, is now an excuse for the exercise of minimal attention.

“The game is to pay just enough attention on the telephone so that you can respond when your name is mentioned, and keep track of what is going on,” says Barley. “This seems to be fairly widespread among the professional managerial class. These things must make meetings less valuable.”

Yet these permanently connected executives end up feeling more harassed than ever. Managers who advertise their mobile phone numbers on their business cards and leave their phones turned on all the time are the ones who are most likely to feel overloaded by work, says Barley.

The mobile’s facility for filling in the empty hours - and chipping away at the productive busy ones - may be only just beginning. Mobile phones are turning into ubiquitous media devices. Technological advances on a wide range of fronts - faster wireless networks, longer battery life, more powerful processors and memory chips - are conspiring to turn the small voice communicator in your pocket or handbag into a high-powered computer, capable of processing, storing and displaying all types of media. That may make it the next iPod, a screen for catching up on TV shows you missed last night, or a way to tap into all the photo-sharing websites and personal blogs that your nearest and dearest use to chronicle their lives.

This permanent exposure to digital media and communications could really start to change the way you experience your life. And as with the arrival of that last great intruder on personal time - the television - it certainly has its detractors.

In his 2002 book Smart Mobs: The Next Social Revolution - one of the best explorations of the impact of mobile communications - Howard Rheingold quotes Leopoldina Fortunati of the University of Trieste on the insidious way that texting has started to erode the
or the University of Trieste on the insidious way that texting has started to consume the idle minutes. “Time is socially perceived as something that must be filled up to the very last folds,” laments Fortunati. This modern obsession threatens to eliminate “the positive aspects of lost time” that “could also fill up with reflection, possible adventures, observing events, reducing the uniformity of your existence, and so on”.

For workers - and their employers - that lost time has a harder economic edge to it.

“Access to a worker - even a colleague - is a scarce resource,” says Glenn Woroch at Berkeley. “Every scarce resource should be priced, either explicitly or implicitly. The fact that you keep your cellphone on, and check your e-mail and your instant messages at your desk, is setting too low a price for this scarce resource.” The trouble is, there is no market mechanism for rationing out your time. The mobile phone is an all-or-nothing thing. “To the extent you don’t want to be forced out of the network, you’re kind of compelled to keep it on and keep it with you all the time,” concedes Woroch.

How, then, to limit all the intrusions and regain control of your life?

Some people are developing their own ways to shut off, compartmentalising their lives into work and social time by consciously creating separate spheres of communications. Some have multiple cellphones for different parts of their lives, just as they have multiple e-mail accounts, says Barley. Research, he adds, shows that managers are by far the worst at segregating their lives in this way and the most likely to allow unproductive work intrusions on the rest of their lives.

Even the creators of this cornucopia of digital goodies concede that it is all getting too much for most users: but, ever-optimistic, the technocrats say that the tools of technology will eventually sort this out.

Ray Ozzie, a chief technology officer at Microsoft and one of the pioneers of the use of e-mail and other so-called “collaboration” technology to organise work life, says that the next five years will see a drive to give workers more control over their communications. Otherwise, tools that are meant to improve the productivity of the average worker - and the quality of life in general - could end up having the opposite effect.

The current Big Idea in technology circles for handing back control is to somehow embed your personal preferences in the technology in a way that makes it respond to how you want to live your life. The phone, for instance, will be smart enough to know when you can be interrupted, and when to leave you alone. It will know, on any particular day, whether to put through a call from your mother immediately, or whether to send her straight to voice-mail.

By learning from the preferences of your close networks of family and friends, it will also have an idea of the sort of things that are likely to interest you. In future, we will all be part of “self-organising peer groups that provide ways to filter things,” says Lampman. Only communications or media that have a place in this more closely defined social realm will be able to find their way on to your personal communicator. “People want more control: you should be able to build your own profile and use that to qualify the things that come to you,” says Lampman.

One day, this could represent a nirvana for mobile communications. It would be a golden age for personal freedom and choice, the apotheosis of what sociologist Barry Wellman calls “networked individualism” - the power to plug into any number of networks without being subsumed into intrusive and suffocating social groups.

For now, though, there is a far more immediate answer to that insistently ringing mobile in your pocket: just switch it off.

Plus: Digital Business editor, Ben Hunt, blogs on his attempts to grapple with WiFi and other technologies at www.ft.com/bensblog