On Internet Time

So Dean Hughson, a forty-seven-year-old egg merchant based in Las Vegas, Nevada, is sending E-mail to a colleague who he thinks is in Amsterdam, though he doesn’t really care, and on the telephone another colleague is calling from Mexico City to say that he’s about to send a fax via a new Internet service, and just at that moment his Seiko MessageWatch beeps because someone is paging him. Does it even matter that his wife is trying to get his attention, and she’s in the same room? Then the cat enters the fray, jumping onto his desk, and Hughson looks at his life in wonderment: “Where in the hell is this old egg guy, and why is his life getting technologically more difficult as he gets older instead of easier?” Yet the forces of evil are not exactly dragging him willy-nilly into the information-flooded future. Hughson is, after all, the selfsame Webmaster who placed a specially designed button on his Internet site to allow anyone at all to flash him messages via
his wristwatch. He waxes nostalgic about the slow-paced good old days, but something makes you wonder how much he really misses them. "I started in the egg business twenty years ago when you actually got in a plane and flew to a city and rented a car and drove to see the customer," he says. "Now I have many customers who I actually rarely see, but talk to, like dreams flowing from your brain, via my E-mail system"—which is, he brags, "cable-Internet 500 kbps blazing speed."

For so many people and businesses, speed is connectivity. The state of being connected makes them more efficient—maybe even more nimble. Sadly, it also makes them feel busier—maybe even overloaded. If you ran a country law firm out of a gray-shingled building on a local blacktop road, once upon a time your work ended when you had caught up with the morning’s mail and prepared the outgoing post. Business ran like correspondence chess, with plenty of time for contemplation. "Unhappily," an American Bar Association pamphlet admonished in 1958, "the public impression is that lawyers are tediously slow." It advised lawyers to adopt modern automatic equipment. Electric typewriters bring one form of pace-quickening ("they are faster" and "require less than one-twentieth the amount of physical energy to operate"). Dictating machines hasten the law firm's heartbeat in another way, allowing the lawyer to work at night and on weekends, without waiting for the stenographer ("Time loss from interruptions is minimized and correspondence is dispatched swiftly. . . . Ideas, time charges, and the like, can be trapped before they leave the mind. . . . Indeed, it can be bluntly stated that, except in rare instances when the secretary's presence in the office at the time of dictation is absolutely essential, person-to-person dictation is grossly inefficient and should be eliminated.") We in the era of voice mail and VCR's recognize the benefit as a version of time-shifting. Other professions, other technological speed-ups: medicine has been as profoundly altered by the simple pocket pager as law by the photocopier. Some doctors worry about the rise of
what they call “beeper medicine”; they see an addiction to paging and quick fixes. Yes, laboratory results and fresh organs can be rushed to hospital bedsides, and amid the frenetic twenty-four-hour activity, lives are saved. But the physician risks losing control of his own pace. “All activity becomes crisis oriented,” complain Drs. E. Ide Smith and William P. Tunell in Oklahoma City.

The intensity and zeal of direct paging has now reached such epidemic proportions that newer equipment with storage capacity can take numerous pages simultaneously. The vision of receiving fifty pages per minute becomes a realistic possibility.

In a less connected time, any business deal based on an exchange of paperwork proceeded at a pace controlled by the mails—two, four, six, or more days between volleys. Then came universal overnight mail and its industrial-age children—in Federal Express jargon, “expedited cargo,” “just-in-time delivery,” “high-speed premium transportation,” and “automating and streamlining the supply chain.” Federal Express sold its services for “when it absolutely, positively has to be there overnight.” In the world before FedEx, when “it” could not absolutely, positively be there overnight, it rarely had to. Now that it can, it must. Overnight mail, like so many of the hastening technologies, gave its first business customers a competitive edge. When everyone adopted overnight mail, equality was restored, and only the universally faster pace remained.

The great instrument of connectedness was, of course, the telephone, transforming the century end to end. Police stations, stock brokerages, and newsrooms managed before telephones but we can barely imagine how. Premodern newspapers sent their reporters to the docks to gather the news from passengers debarking from the great ocean liners. They relied on the mail those ships brought, transoceanic bandwidth measured not in bits per second

85
but in bits per week. News day by day was fast news. The *New York Times* continued its anachronistic Shipping/Mails column as late as 1984. That year, if a law firm had a fax machine, it was an expensive curiosity, perhaps employed mainly for special communications with a particular corporate client. Only eighty thousand fax machines were sold nationwide. Just three years later, in 1987, virtually every American law firm had a fax machine, and within two more years, realtors and takeout restaurants and hardware stores had jumped on the train. Businesses and individual consumers bought two million fax machines in the United States in 1989, and a business card suddenly looked bereft without a fax number. The even faster bloom of E-mail addresses and Web pages, inconceivable at that point, was just six years away.

Connectedness has brought glut. In a group of *n* people, the numbers of possible telephone conversations or dinner-party seating arrangements or sexual-disease transmission vectors grow combinatorially, and combinatorial growth is much faster than geometric growth; it's generally exponential, in fact. Much of the human experience (knowledge, disease) spreads by proximity, and for any one person the number of fellows in proximity has exploded. In past times, even in the most crowded city, we lived close enough to only a few people to, say, read their journals or track the temperature of their hot tubs. Now, in hordes, they put that information on-line. The multiplication of information pathways leads to positive feedback effects in the nature of frenzies. The more people talk and write about the occasional mass phenomena that grab the hysterical attention of American culture—O. J. Simpson, El Niño, Monica Lewinsky, Y2K—the more people want to hear. The more journalists hear, the more they feel able—even obliged—to keep talking and writing. As fluid pressure rises (you learn in high school physics), molecules collide faster and more often, and so the temperature rises too. Close packing and transmission speed are two sides of a coin; that is why sound travels faster through dense crystals. And that is why
Dean Hughson is both rueful victim and cheerful perpetrator of information glut. By 1915, in the fourth decade of commercial telephone service, the American transcontinental system had developed the capacity to handle three simultaneous voice calls. A generation later, AT&T developed a coaxial cable that could handle 480 calls at once. By the 1980s, individual Telstar satellites had enough capacity for nearly 100,000 telephone links, though they were more likely to use the bandwidth for television transmission. Now terabit transmission is coming on-line—one trillion bits per second, or enough for three centuries of a fat daily newspaper. This is the Information Age, which does not always mean information in our brains. We sometimes feel that it means information whistling by our ears at light speed, too fast to be absorbed.

The American company that promoted the Internet hardest in its early days, Sun Microsystems, conducted research in 1997 into how people read on the Web and concluded simply, “They don’t.” They scan, sampling words and phrases. Why? In part because any one page, on which the fluttering user happens to have lighted momentarily, competes for attention with millions more. Jakob Nielsen, the Sun scientist who carried out the study, cited a typical complaint by a test user, dismayed to be confronted by actual prose—paragraphs of it: “If this happened to me at work, where I get seventy E-mails and fifty voice-mails a day, then that would be the end of it. If it doesn’t come right out at me, I’m going to give up on it.” Nielsen proposed guidelines for catering to such users—guidelines that came to describe more and more of the Internet reading experience: highlighted keywords, bulleted lists, frequent subheadings, and paragraphs containing exactly one idea. Nothing sticky enough to slow the reader’s headlong slide.

Reading E-mail starts to feel like a forced march through a shadeless landscape. More Sun research found, as Nielsen says, that
everybody who has E-mail complains about the masses of E-mail they get. Interestingly, the complaints are about equally strong no matter how many messages an individual user gets. In other words, people will tell us “I am so overwhelmed: can you believe that I get ten E-mails per day” with the same tone of voice as somebody complaining of one hundred messages or more.

My explanation for this phenomenon is that people’s expectations for what to do with the mail changes: when they get a little, they treat it as personal correspondence and consider each message and its reply carefully. When they get a lot, most messages immediately are fated for the Delete key. Users are constantly behind on upgrading their behavior on this curve of information neglect, so they constantly feel stressed.

No quills to sharpen, no ink to blot; just bits and more bits, at light speed. Somehow, these same stressed people find minutes to visit a Web site that lets them watch in real time what other people are searching for. The search terms flash by, fleeting signposts of information glut: “romantic ideas,” “writing and love and letters,” “cable reel truck,” “free clip art,” “London real estate,” “conduct disorder.” It is as if the new World Brain were on display at a science museum and you could peer in and watch the neurons crackling. Technology has opened a direct channel inside. All the stuff pouring in causes congestion, takes up space, reduces productivity, floods the basement, and hyperventilates the attic. That is the sensation, anyway, almost universally shared. More than twenty thousand distinct sites on the World Wide Web address the issue of information overload and, inevitably, contribute to the problem. “Information Overload?” asks an Internet banner advertisement for, it turns out, Microsoft Pointing Devices: the proposed solution is to “Get Moving” with an interactive demonstration of scrolling and zooming.
Who knew that the inconvenience of old-fashioned letter-writing provided a buffer? Highway engineers learned that they could ward off freeway congestion by holding back cars at the entrance ramps, forcing them to wait at seemingly pointless red lights—for their own good, in the long run. In the same way, the unavoidable delays in volleys of business communication before fax, before FedEx, and before E-mail, served as pauses for thought. A lawyer could reconsider a rash piece of mail while it was in the stenographer’s out-box. Decisions could ferment during accidental slow periods.

Perhaps we simply have not had time to adjust. We may need to set aside formal time for deliberation, where once we used accidental time. In reaction to the information surplus, a Simplify Your Life movement was born in the nineties. Simplicity loves paradox, unfortunately, and simplification seems to require new fountains of information. For example, Linda Manassee Buell of Arizona, professional coach, trainer, and advisor in life-style development, offered workshops and “teleclasses” on how to simplify your life, plus a 101 Tips booklet, audiotaape, and workbook, major credit cards accepted. Macy’s advised simplifying your life with the services of its personal shoppers and their “myriad of choices.” A drawback of life-simplifying always seemed to be the deprivation required. Some of the things that complicate your life might actually be welcome. “Pretend You Have Just Three Friends,” advised Redbook. “Stop watching TV news,” advised Elaine St. James, one of a cornucopia of simplify-your-life authors. “Cancel half your magazine subscriptions.” “Cut back on the number of toys you buy your kids.” (“When all this is done,” one of her readers grumbled, “breathe a deep sigh and say to yourself twenty times, ‘I affirm that I have created a life style that does not require my presence.’”) Then again, you might need to get new
Faster

stuff to simplify your life: the Simply Checking Account; hardwood floors, “voice and fax on demand”; California Closets; a home equity line of credit, Simple® shoes (“single speed”), or any of thousands of other items and services marketed in the name of life simplification.

The whole business turns out to be easier to imagine than to accomplish, and the gurus don’t necessarily practice what they preach. Readers have a choice of books offering 100, 52, 365, 99, and 90 ways to simplify their lives. Apparently no author can write just one. St. James alone regurgitates her life-simplification advice in at least five. People mostly read these manuals voyeuristically, the way they read travel magazines with sublime accounts of al fresco meals and blazing white-sand beaches far, far away—meals never to be eaten and beaches never to be visited. The essential simplify-your-life lesson, the idea that launched the phenomenon, is strong and valuable: you have the power to make choices, so make them. Try to distinguish between the little nattering demons that can fill every moment and the greater, quieter spirits that can enrich the passing hours. You may as well, because the life-simplification coaches and trainers will not. They are busy giving birth to an unmistakable Simplify Your Life information glut.

We complain about our oversupply of information. We treasure it nonetheless. We aren’t shutting down our E-mail addresses. On the contrary, we’re buying pocket computers and cellular modems and mobile phones with tiny message screens to make sure that we can log in from the beaches and mountaintops. These devices are fed by our ever-growing militia of information carriers, professional and amateur journalists. Their spy satellites and listening posts and video cameras ring the globe. Without these information sources we would feel sensory deprivation, as if stripped of our hearing aids and corrective lenses. We can barely understand, omniscient as we are, that the 1941 attack on Pearl Harbor ended an eleven-day voyage by the unseen, unheard Japa-
nese fleet through a data vacuum; or that two thousand people
died in the 1815 Battle of New Orleans a fortnight after the rele-
vant peace treaty had been signed in London. We expect informa-
tion to shine everywhere, soonest. The twenty-four-hour news
networks undermine the authority of the traditional network
news shows, like it or not—as they, in their time, outgunned the
evening papers with a seemingly instantaneous delivery of facts
and images. It was not instantaneous, of course, the occasional
live feed aside. It was on a time scale of hours; now viewers expect
a time scale of minutes. Correspondents who used to scrounge for
access to a courier or a Telex machine or, like Peter Jennings,
scramble to have film hand-carried from one Asian capital to the
next, now carry a complete satellite uplink in their luggage. Along
with their laptops and cellular phones, of course.

More than fifty-eight million people in the United States and
Europe are “mobile professionals,” the Hewlett-Packard Com-
pany claimed in 1998, with a need to scan and fax contracts,
newspaper articles, and market reports “spontaneously” while
they are someplace defined as between other places: driving
between sales calls, or on an airplane, or waiting for an airplane.
Hewlett-Packard, of course, has new technology to help them
capture and transmit this information quickly. We conduct busi-
ness in bursts. As new items arrive, we curse the offers of FREE 1 yr.
USA Magazine Subscriptions and $785,000 Dream Home Give-
away!!! We tire of jenny@babeview.com, whose epistolary method
is to remark, WoW :{] and See ya, by way of inviting us to look at
video footage of naked women. We hear more jokes sliding into
the Inbox than we ever did from pals at water coolers; when the
Subject line reads, FW: FWD>Fwd- (Fwd) a joke for y, something
tells us we’re not the first person to read this one, but we do read
it, and then we pass it on. Our own little mailing lists of four or
six or eight sympathetic souls form tiny enough pathways, yet
before long they interconnect globally. Jokes about sex, jokes
about UNIX, jokes about lawyers, jokes about Star Trek or Bill
Gates in the form of Dr. Seuss doggerel or David Letterman top-
ten lists—all these slosh across cyberspace with tidal force. Horri-
bly morbid disaster jokes appear and spread with the kind of
timeliness heretofore seen only in tightly knit joke-telling com-
munities of cynical types with access to fast worldwide communi-
cation—namely, stockbrokers and journalists. Traveling-salesman
humor is obsolete, because we do not need traveling salesmen to
carry jokes around. It may soon be a matter of minutes from the
time a joke is born to the time every human with a modem has
received it.

Every time we curse the overflowing in-box and pass another
chain-mail joke along, we expose a disparity between how we feel
and how we act. Unless we are masochists and lemmings, we must
know something that we aren’t telling ourselves. We like the E-
mail. We like the connectedness. We do not seem interested in an
about-face toward the simpler lives we recall with that rosy, nos-
talgic glow. Our speedy, in-touch lives can feel good in their own
way. The economist Herbert Stein, eyeing the new hordes of men
and women who walk city sidewalks with cell phones at their ears
and mouths, decided that our need for information on demand is
as primitive an instinct as any animal can have.

It is the way of keeping contact with someone, anyone, who
will reassure you that you are not alone. You may think you
are checking on your portfolio, but deep down you are
checking on your existence. I rarely see people using cell
phones on the sidewalk when they are in the company of
other people. It is being alone that they cannot stand. And
for many people, being alone really means being with-
out Mommy. We are raising a generation that had radio
transmitters in its nurseries, keeping Mommy constantly
informed of every movement of the baby in his crib. We will
soon be walking around with transmitters in our lapels
or pocketbooks, constantly connected via satellite with Mommy.

A Freudian economist! Their Walkmans, he says, are a way of regaining the steady, comforting beat from the lullabies of infancy. After all, we were born connected. Solitude came with maturity.

Before anyone conceived the idea of bandwidth, before technologists studied information flow as a science, people played chess by mail. In correspondence chess, the transmission of a few useful bytes takes days. The ratiocination is slow, too. This form of chess has now been partly supplanted by on-line competition, but only partly, because some players treasure more than ever the quaint thrill of squandering a hundred hours or more on a single game. Bandwidth in bits per day is a kind of conspicuous consumption or a rebellion against modernity, like wearing spats. In business, not many players can afford quaint thrills. If people want to reach us, we want to be reachable—hence, at the extreme, the Internet fax, the wristwatch pager linked to Web site, and the E-mail system at cable-Internet 500 kbps blazing speed.