Cell Phone Scenarios
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• It’s 2002. I am sitting at a crowded gate area in Chicago’s O’Hare Airport, anxious to learn if my long-delayed flight will ultimately board or be canceled. Clumps of passengers waiting for this flight huddle wearily against their luggage. I seem to be the only one concerned when a man who looks like he’s been sleeping in his clothes suddenly jumps shouting to his feet and begins marching up and down with determination. There’s a scowl on his face and his arms saw the air as he talks loudly and angrily to himself. He looks right through me as he comes near, rattling off words and numbers that I can’t quite make out. Terrorist? Psychotic off his meds? Neither, I finally realize with relief: just a business traveler working his hands-free cell phone while we wait.

• It’s 1994. At a Scottsdale Arizona movie theater, where I have gone to escape the 100 degree evening heat in June, a slide comes on the screen between the ads and the previews asking patrons to turn off their cell phones. At least twenty people in the audience immediately do the opposite, turning on their phones to make a call before the show starts. In retrospect, the management’s request seemed unnecessary: the sound track was so loud that no one would be bothered by a cell phone ring.

• It’s 1999. I’m driving along a busy Chicago street when a man piloting a silver Mercedes while he talks on his cell phone pulls out of a parking lot directly into my path. I slam on the brakes, narrowly avoiding his expensive bumper, and without thinking I show my annoyance by honking the horn. With one hand on the wheel and the other holding his mobile, he can’t honk back. Instead, he raises the telephone aloft, its antenna extended in a high-tech gesture of obscenity. My daughter cries out from the back seat, “That guy just gave you the phone.” Amidst the laughter that followed a gesture that was both literally and figuratively digital, a new family idiom is born: to give someone the phone.

It’s 2007 as I write this, and it’s a given that by now, almost everyone in the United States has a cell phone. Cellular telephony began in 1947, when each cellular area had the capacity for only twenty-three separate conversations at any one time. Even in those days that wasn’t a lot of calls, so not a lot of people signed up for the service. The first cell
phones were also heavy and expensive. A 1983 model weighed two pounds and sold for $4,000 (Levinson 2004, 32). But by 1994, when I went to that movie theater in Scottsdale, things had changed dramatically: something like 16 million Americans owned mobile phones. I was not among them. It’s fifteen years later, and now my family of four has four cell phones, and exactly 262,720,165 other Americans have them as well (CTIA 2008). With the population of the United States at over 305 million, this means that almost everyone over ten years old has a mobile phone. Most of those 262.7 million people seem to be talking on the phone while they drive, or sending last-minute instructions to their babysitters before the movie starts.

Today’s mobiles are small, weighing only a few ounces, and most have ditched their expressive antennas. Service providers often give away entry-level models or they sell upgrades at steep discounts. In parts of Europe mobile phones are so common and service is so cheap that people are giving up their land phones, and significant numbers of Americans are switching completely to wireless as well. Internationally, cell phone use is expected to explode in as-yet-untapped markets in Africa and Asia, and some estimates see world-wide mobile phone usage at the two billion mark in the coming year.

A 2004 survey at MIT identified the cell phone as the invention Americans hate most, but can’t live without (Lemelson 2004; the runner-up in the most-hated category is the alarm clock, followed closely – and oddly – by television). Complaints about mobile phoning show just how central the pesky devices have become to everyday life. Grips range from dissatisfaction with the technology (too many dropped calls, inadequate coverage, poor customer service), to dismay at the cell phone’s intrusiveness (noisy callers in public places), to dire health warnings (cell phone microwaves cause brain tumors and blow up gas stations).

It should come as no surprise that when the telephone itself first came on the scene, in the late nineteenth century, there were complaints about that invention as well: dissatisfaction with the technology (poor voice reproduction, noise on the lines), dismay at the telephone’s intrusiveness (anyone can call you, at any time), and dire health warnings (according to Marvin [1988], Bell’s telephone was blamed for everything from ear irritations and dizziness to nervous conditions, neuralgia, and even insanity).

Balancing such complaints about what was then the last word in word technologies were their promises: in addition to extending the range of conversation, the telephone transmitted concerts, ball games, and the news, as well as religious services, plays, election returns, and even sensational murder trials (Marvin 1988). Similarly, the cell phone wants to be more than a telephone, bringing patrons stock quotes, sports scores, text messaging, and a less than world-wide version of the Word Wide Web.

But the telephone never proved out as an instrument of education, entertainment, or edification, and the phone quickly settled down to doing what it did best: transmitting voice messages from person to person, or sometimes, once automatic dialing and answering had been perfected, from machine to machine. Nonetheless, the phone’s effect has been dramatic, altering our conversational practices and changing the way that public and private communication functions.

Improvements in telephone technology have turned the phone once again into more than a mere transmitter of voices across distance: we now use telephones to leave messages, identify callers, and send written documents – texts and faxes – across the wires and the airwaves. Even more important, fiber-optic telephone lines have become a
primary way to connect computers, allowing them to share massive amounts of digitized data and creating the pathways of the Internet.

Cell phones are evolving too. One current trend favors a single, pocket-sized communication unit – smart phones like the BlackBerry and the iPhone – combining the functions of phone, browser, media player, calendar, and minimalist word processor. As yet none of these multi-purpose gadgets does what a stand-alone phone, computer, or Palm Pilot can do, but the lure of being the first one on the block, or in the office, to own the latest high-tech toy has well-heeled customers readily opening their wallets and spending down their expense accounts. In addition, American cellular providers continue to bombard those of us who keep one eye on the budget with offers of ever more free minutes and indecipherable calling plans; with phones that take pictures or double as walkie talkies; and with add-ons to customize the look and ring of our phones so we can stand out from the crowd. Phones in South Korea can even double as debit cards, allowing users to pay for transactions by beaming account information directly to vendors. But the main impact of cell phones so far has been to further change the nature of conversation and the way people behave in public.

Mobile phones literally do what their name says, making callers mobile by freeing them from the tyranny of the location-dependent phone jack. Wireless telephony allows us to increase privacy, always important to telephone users, but at the same time it permits the huge upsurge in what we might term PDC, public displays of conversation. In an airport crowd, at the movies, on the street, being on the phone has become normal, if not inevitable.

Being overheard while on the phone has become normal as well. For populations on the move, mobile telephones are now a way of life. As students walk from class to class at my university, most of them are also talking on the phone. Although one side of their private conversation is being broadcast across public space, the students don’t seem concerned about eavesdroppers. They figure that if most of the other pedestrians are on the phone, then few are free to listen in.

Students are not just talking to their friends via cell phone. More and more students who go to college away from home report daily cell phone calls from, and to, their parents. “If my mom doesn’t hear from me by lunch time every day, she goes nuts,” one student told me, explaining why her phone rang during our conference. This is a far cry from the obligatory once-a-week collect phone call home of my own college days, together with the elaborate phone rituals we established back then for indicating safe arrival at a destination without incurring long distance charges. With hundreds of free minutes, who needs ring twice, hang up, ring one more time?

Students are also bringing their phone calls into another public arena, the classroom. It’s certainly happened to me:

It’s the first day of my “Literacy and Technology” class at the University of Illinois, and just as I begin my soliloquy on how the new digital technologies are changing the ways we communicate, a tinkling melody emanates from a backpack. Without any embarrassment, a student digs out her phone, murmurs into it for a moment, then puts the device away. I say, pointedly, “As I was saying . . .,” though only some of the students see the irony: it was as if I had arranged for the call to come at exactly the moment when I proclaimed that mobile telephony changes conditions for
more people than just the caller and the called. If only I had such foresight in making lesson plans.

It was only a matter of time until my own phone rang while I was teaching. There was no use pretending that I engineered that phone call to make another educational point. After acknowledging that teachers, too, forget to turn off their phones before class, and that once we had become dependent on it, technology had a habit of intruding unexpectedly in our lives, I went back to my lecture.

**Dialing to distraction**

Cell phones go off not just in class, or at the movies, but in all sorts of places where we don’t anticipate or appreciate them: at weddings, bar mitzvahs and funerals; at lectures and job interviews; at expensive restaurants; and on airplanes, where they are forbidden in flight lest they disrupt navigation – though there’s no data that shows that phone signals can interfere with airplane equipment. Phones chime in public restrooms, where answering them must not be very convenient, and in idyllic outdoor settings, where they have already become as integral a fixture of the natural world as the plastic rings from six packs. I’ve even seen a leather-clad motorcyclist roaring down the street, talking animatedly on a cell phone. I wanted to ask him, as we both pulled up to a red light, how he could hear the conversation over the engine roar, but he didn’t look like the kind of person who would welcome my research questions.

Because they intrude so often in public settings, cell phones have quickly acquired a bad rap. Schools banned cell phones not just because they interrupted class, but because, like pagers before them, they were implicated in gang activity and drug-dealing. In Louisiana, taking a cell phone to school could lead to thirty days of jail time, and in Florida schools, possession of a cell phone was made a felony. Now that fifty to ninety percent of students carry phones, most such penalties have been relaxed, but schools still ban phone calls during class and, since texting has become a substitute for passing notes in class, a few even require students to keep their hands on their desks at all times.

Some jurisdictions have banned driving while phoning, hoping to reduce accidents that way. Most states have vague laws prohibiting drivers from engaging in distracting activities, but drivers could argue that a quick glance at a phone screen or some fumbled dialing is no more distracting than changing the radio station or placating a crying child in the back seat. On my drive to work I’ve motorists curl their eyelashes and shave (with an electric razor). But in the world of distracted driving, that’s nothing. CNN reported the arrest of a Schenectady man for watching an X-rated movie on the in-car DVD system in his Mercedes as he drove, while other drivers have installed book clamps on their steering wheels so that a book can take their minds off a boring commute (Washington 2004). If I remember correctly, the Mercedes driver was charged with public indecency, not driving under the influence of television.

I’m a big fan of reading, but I move out of the way quickly when I see a driver with a book nestled in the steering wheel. Unfortunately it’s not practical to get out of the way of cell-phone-using drivers: there are just too many of them. I once stood on a street corner near my office and counted drivers using phones. My survey wasn’t scientific, but at times every driver who went by was on a call. The cell phone has become so essential in the American communication hierarchy that people have told me of fender-benders
where both drivers climb out of their cars and continue to talk on the phone for several minutes before turning to inspect the damage.

Three states have made phoning while driving illegal, while others, like Illinois, have bowed to the inevitable, relaxing bans on headphones to encourage drivers to use a hands-free earpiece to make their calls. New Jersey has a tough law which prohibits motorists from doing just about anything except driving while driving (Henig 2004). The National Highway Traffic Safety Administration has tried to determine whether cell phone use actually contributes to accidents, and its answer so far is a tentative yes. An NHTSA survey conducted in 2002 found that half of all drivers thought other drivers using cell phones posed a hazard, while thirty percent of drivers acknowledged that they themselves either made or received phone calls while driving. Only one third of these drivers use hands-free devices (NHTSA is not certain that such devices are less distracting), and the average driver’s call lasted almost five minutes, with more than thirteen percent of calls taking more than ten minutes.

Clearly talking on the phone takes longer than changing a CD, but drivers don’t see their own phone use as a problem. On the other hand, drivers report that activities which do cause accidents include looking for buildings or street signs, dealing with children or other passengers, trying to find something inside the car, and watching what other drivers are doing. These activities, all of them legal, may take only seconds, but they have more dramatic effects. Drivers rate fiddling with the radio as a more significant technological distraction than making a call (NHTSA 2002).

Although driving while phoning is now commonplace, the Department of Transportation can’t accurately assess the role of phone use as a contributing factor in accidents because that information is often not included in accident reports. We also don’t know figures on pedestrian cell phone users who are injured by cars, though it’s clear that pedestrians who phone while walking may step out into traffic without looking, which can be dangerous. Cell phone opponents argue that cellphone walkers bump into pedestrians, contribute to “pedlock,” and are less likely to notice their surroundings or help strangers in need (Belson 2004). Even if some accidents are caused when cell phones distract drivers and strollers, it seems clear that most drivers and pedestrians manage to call, drive, walk, and perhaps even chew gum, without dire results.

**No call zones**

Airplanes, cars and movies are not the only venues for cell phone regulation. Signs at gasoline pumps warn motorists not to keep phones on while refueling. Although there seems to be little hard evidence that either static discharge or microwaves from cell phones can ignite gasoline fumes, experts at the AAA and the Society for Petroleum Engineers tend to take a “better safe than sorry” approach and advise against using cell phones at the gas station.
Usually, though, cell-phone bans aren’t safety-related. Some restaurants, having failed in their request to have patrons put away their phones while eating, look instead to technology that will jam cell phone signals in the dining room. And now that mobile phones can sport miniature digital cameras, at least one city has banned cell phone use in locker rooms, fearing that callers might surreptitiously take snapshots of hot and sweaty bodies to post on the Internet. Sales of gadgets that block mobile calls are booming, even though jamming phone signals may be illegal. It’s not just that cell phone jammers restrain free speech. Noisy patrons can be ejected from a restaurant or from a train (provided it’s not moving too fast) even if they’re not on the phone. But phone jammers block FCC-licensed broadcast signals. According to the Federal Communications Act of 1934, that’s a federal offense, punishable by a fine of up to $11,000 for each violation (Lubell 2004). A cartoon showing a lonely crowd of cell phone users clustered near building entrances, like exiled smokers, suggests both the dependence generated by this new word machine, and the popular backlash against the way mobile phones, like smoking, are spoiling the environment for everybody else.

But even as they are being banned, mobile phones prove their value in emergencies: when students hiding from the Columbine school shooters called out for help on their cell phones, parents around the country began to insist that, gangs or no gangs, their children be allowed to carry cell phones to school. On 9/11, when passengers on hijacked airliners called out on their cell phones, the mobile telephony of travelers jumped from annoying to heroic, though some railway commuters still demand phone-free cars with the same vehemence they once used for nonsmoking cars, and airlines have only slightly relaxed their rules on cell phone use.

The usefulness of mobile phones in minor emergencies is also clear. Parents keep their cell-phones on in theaters and restaurants – hopefully set to vibrate rather than ring – so the sitter can reach them in an emergency. Stranded motorists summon tow trucks on their cell phones, and the new generation of phones comes equipped with GPS chips so that emergency response teams can find callers who may be unable to identify their location. But there’s also a downside to letting people know where you are. Just as the mobile phone allows callers to reach out from a private spot to the public world, it allows that public world not just to intrude on their private space by calling, but to actually locate their position on a map. These phone locator chips promise to become the equivalent of the prisoner’s electronic monitoring bracelet: web services now offer to track cell phone positions and report to parents both their children’s exact location and the speed at which they might be driving. Of course, to circumvent this, kids can turn off their phones, but that means cutting off friends’ access as well.

Cell phones are so popular that they are starting to permeate media representations of our lives. In 1995, CTIA (2008) estimates there were a little under 34 million Americans using mobile phones, a small number by today’s standards, but enough to make an impression. In the opening of the 1995 movie “Clueless,” Cher and Dionne, the two teenage leads, walk side by side down a hallway in their high school, talking to one another on their cell phones, an ironic suggestion that phone talk is replacing face to face encounters, just as the critics of new the new technology might have predicted. But not to worry, for Instant Messaging has gone the cell phone one better, at least in teen culture, and a 2006 version of “Clueless” might show the protagonists texting one another instead of calling, giving further ammunition to those
who have lamented since the introduction of writing itself several thousand years ago that the art of conversation is dying.

If “no call zones” proliferate, it won’t be long before someone makes mobile telephony a free-speech issue. In most cases, though, our calls don’t get through not because phones are overregulated, but because the technology has failed. Sometimes the media chronicles such technological breakdown. In the movie “Air Force One” (1997), Harrison Ford, playing president James Marshall, eludes terrorists who have taken over the presidential plane, only to find at a crucial moment when he is calling the White House from his hiding place in the cargo hold that his cell phone has succumbed to “lo bat.”

But usually cell phone service is depicted on the screen as better than it is in ordinary life, with no dropped calls or downtime for recharging. A television commercial for Verizon Wireless – seeking to distance the company from the early and widespread problems it had with mobile reception – shows a quality-control representative walking everywhere, chanting the catch phrase “Can you hear me now?” to ensure a strong signal for customers. Even so, cell phone signals remain a significant problem both in remote and in congested areas, and when I called Verizon once to complain about a poor signal in my office, the service representative told me, “We don’t guarantee reception.” She apparently hadn’t seen the ads.

The new connectivity

Whether it’s a business instrument or purely a social one, the mobile telephone’s connectivity sometimes disrupts the public and private realms, while at other times it simply expands or redefines their nature. That is exactly what happened when the first telephones came on the scene in the 1880s, amid hopes that this innovation in person-to-person access would further enlighten and democratize American society, and fears that the intrusive and dehumanizing medium would open the way for fraud, crime, and social fragmentation.

The word telephone predates the device as we know it. It goes back to the 1830s in reference to sound transmitted mechanically across a distance. Inventors in Europe and America tinkered with sound reproduction through much of the nineteenth century, coming up with a variety of electrical contraptions to allow the spoken word to transcend the limitations of space just as print is able to do. At least one sound pioneer, the German Phillip Reis, called his invention a tone telephone as early as 1861, though he acknowledged that his imperfect instrument was better at transmitting consonants than vowels.

Alexander Graham Bell introduced his own “Electrical Speaking Telephone” in 1876. The American engineer Elisha Gray, founder of Western Electric, brought his design for an instrument “for transmitting and receiving vocal sounds telegraphically” to the patent office only two hours after Bell filed his own telephone patent, which led to several years of wrangling and lawsuits. Although both Gray and Reis, and some others as well, may have equally-strong claims to being the inventor of the telephone, in the end the American courts decided that Bell’s was the first device to transmit the human voice electrically, and his is the name generally associated with the telephone, and the telephone company. Acoustic telephones like the “lovers’ telephone,” a variant of the popular children’s contraption consisting of two tin cans connected by a taut string,
enjoyed some popularity alongside Bell’s instrument, but by the later 1880s the electric telephone was well on its way to becoming a must-have item, first for business and later, for the home.

The Bell family concern with speech communication spanned three generations. Alexander Bell, grandfather of the inventor, was an authority on phonetics and speech pathology. His son, Alexander Melville Bell, carried on the family tradition, devoting himself to the education of the deaf by means of “Bell’s visible speech,” a system of alphabetic characters that taught pronunciation by diagramming the positions of the speech organs. Melville Bell’s son Alexander Graham Bell ran a school for training teachers of the deaf, and was a widely respected lecturer and writer in the areas of phonetics and pronunciation (he was also president of the National Geographic Society).

Bell’s telephone was instantly popular, and like the mobile phone it spread quickly. The first telephone switchboard, in New Haven in 1878, boasted twenty-one customers. There was a grand total of 3,000 telephones in the United States in 1876, an eighteen-fold increase to 54,000 only four years later, and more than 1.3 million in 1900 (Marvin 1988, 65). But long after its introduction the telephone remained an uncommon domestic appliance: it was found in the homes of the rich, and in the home offices of doctors, who subscribed for business use, although some doctors complained about patients calling them for free advice instead of paying for office visits (Marvin 1988, 88). According to Paul Levinson (2004, 25), it wasn’t until the 1950’s, a good seventy-five years after its introduction, that the telephone finally reached half of American households. It took the internet and the mobile phone only a decade to reach that point, though in the ten years after American television began broadcasting in 1946, that new electronic medium managed an even more impressive 86% saturation level.

Phone companies considered the telephone first and foremost a business instrument and emphasized its practicality rather than its social usefulness. They didn’t even market phones to the working class, and it was not until users turned to telephones for personal conversation and social interaction rather than for commerce that the phone finally came into its own on the home front (Fischer 1992, 85).

It should come as no surprise that domestic telephone subscriptions spread in a pattern reflecting status and income, primarily in the homes of professionals and white collar workers. Marvin reports that many people in England and America regarded telephones as status symbols, their high price a promise that they would preserve traditional class distinctions (1988, 102). It was also apparent that telephones could be social levelers, offering cheap service and opening new lines of communication to all. But the bottom line won out for most subscribers: during hard times, the phone became something to do without until finances improved. After an initial surge of popularity in rural areas – the telephone bridged the isolation of farm communities – farm use of phones declined during the Depression, as did phones in the homes of blue collar workers and the poor (Fischer 1992, 301). According to Fischer, for the first half of the twentieth century more people classified a car as an everyday necessity than a phone. Only after World War II did the telephone became both affordable and all but universal in the United States.

Cell phone use spread more quickly across a much broader cross-section of American society. Land phones still tend to be the province of regional monopolies, and though mobile service often started as an expensive add-on from the “phone company,”
with calls costing 45 cents a minute or more, it wasn’t long before competition arose from multiple service providers who used aggressive marketing that focused on low-cost, fixed-rate plans and free phones. And prepaid or pay-as-you-go cell phones soon became an option that made wireless service available to those whose credit was shaky or who preferred to control their costs even more (not to mention spies, terrorists, scammers and criminals who used these “burner” phones because they didn’t want their calls traced). As the cell phone became universal, both phone users and government regulators realized that the privacy issues that had been settled for traditional phones long ago required some rethinking.

Privacy matters

We have come to think of the telephone as private. State and federal laws protect us from official and unofficial eavesdropping. Police wiretaps are strictly controlled, and third-party eavesdropping is usually forbidden. Some states permit the taping of phone conversations by one of the parties; others require both parties to consent, and still others, like Illinois, forbid it entirely. We can set the privacy level of our conversations by moving the phone or by whispering so that bystanders can’t overhear us, and we certainly don’t expect operators at the phone company to monitor our calls.

It took some doing to make our telephone calls secure. Like the cell phone today, when the telephone came on the scene it turned private conversations into public property. Even though it was initially marketed as a commercial instrument, callers immediately took advantage of the telephone’s social potential, using it as a personal, not just a professional, instrument. Even business subscribers by no means confined their calling to job-related matters.

Workers have always used the phone to gab as well as to conduct business, to the consternation of their employers, who promptly asserted their right to listen in. Today management is legally allowed to listen to employee calls under the guise of quality control to make sure they are not wasting company time on personal matters. With such long-established eavesdropping practice as a precedent – a practice which is variously viewed both as unprincipled spying and as sound management – employers also assert their right to monitor employee email and internet use. Managers look at word technologies paradoxically: the new machinery increases productivity and at the same time threatens to sabotage it. While telephones and computers facilitate work and distract workers, they are also deployed to check up on workers and record exactly what they’re doing.

The first telephones intruded on physical and social spaces, reconfiguring them in ways that some people objected to. Although the instrument was more common in offices than homes, the telephone’s impact on home life was the subject of much concern. Just as telephones promised to connect everyone with everyone else, they also threatened to put an end to privacy forever. Naïve telephone users even feared their callers could see as well as hear them, and popular reticence in the face of video phones suggests that callers are still not ready for a telephone as revealing as a web cam. Marvin cites one British writer who feared that the telephone would do away with secrecy to the point where “we shall soon be nothing but transparent heaps of jelly to each other” (Marvin 1988, 68).

If today’s cell phones seem too public (especially in the hands of other people), we should remember that privacy was even less of an option with the first telephones.
When households or businesses got a telephone, it was placed in a prominent location: on a wall in a main room or hallway, or once desk phones became available, around 1910, on a centrally-located table or counter. Speaking on the phone meant there was no place to hide: you were out in public, where everyone could listen in (because of poor sound quality, whispering into the phone simply didn’t work).

The telephone signal weakened over distance, and when Alexander Graham Bell and his assistant Thomas A. Watson demonstrated the instrument, they had to shout into the mouthpiece in order to be heard at the other end. Even though the invention of signal repeaters soon allowed the boosted electrical impulses to be carried over longer distances, phone sound technology remained primitive: voice reproduction was not particularly natural, and line noise was common, so callers still had to speak loudly to get their message across.

In addition, callers frequently shouted into the phone just to drown out the room noise that occasionally made it hard for them to hear the person at the other end. All of this meant that everyone in the room shared one side of the conversation, whether they wanted to or not. And if the person on the other end spoke loudly enough, bystanders could hear the other side as well. These bystanders not only eavesdropped, they frequently took on the role of kibitzers or hecklers, joining the dialogue, offering advice, generally getting in the way of the call just as the call had interrupted their own, earlier conversation.

Not only bystanders listened in to the first phone calls. Party lines in rural areas compromised privacy, as members of other households on the same phone line could eavesdrop. Telephone operators also breached privacy: it was part of their job. Operators were required to check in regularly on conversations to determine whether the line was still in use, since with the earlier generations of phone equipment, the connection was not automatically broken when callers hung up. But soon enough operators took on the additional role of conversation monitors, occasionally threatening to suspend the phone privileges of callers who used improper language or otherwise violated standards of public decency. One anonymous critic complains in 1895 of the attempts people made to behave at the public telephone as if they were speaking in private: “I have even heard people trying to kiss over the wire.” [The Critic] Lovers quickly adapted the telephone to their own particular needs, and while it is not clear exactly when phone sex was invented, bystanders and operators alike were scandalized by the public displays of affection occasioned when a caller “pitched woo.”

Although advances in telephony now allow us to carry on truly private conversations that may go well beyond some friendly osculation, the instrument still plays havoc with our manners and our expectations. When young children first start using telephones they generally behave as they would if the person they are talking to were present. They shake their heads instead of saying yes or no, and assuming their interlocutor can see as well as hear them, they show objects to the receiver. When my three-year-old daughter dropped the phone during one conversation, she picked it up and asked solicitously, “Grandma, did I hurt you?”

Adults also tend to transfer some of the nonverbal aspects of conversation to the telephone. The linguist Charles Fillmore reports observing elderly Japanese phone users, bound by a strict code of politeness, who ended calls by placing the receiver down on a table and bowing toward it, the bow being part of the conventional in-person good-bye.
And I myself have seen the French in Parisian phone booths screw their faces up into a moue, shrug their shoulders, and extend their hands in a gesture of hopelessness, just as they frequently do in face to face encounters.

**The calling game**

The telephone duplicated many aspects of face to face conversation, allowing people to communicate by voice across town, then across the country, and finally, across the oceans. But from the start people noticed that the telephone made for a different kind of conversation. Talking on the phone was not the same as talking face to face, both because technology was mediating the words and because participants in telephone conversations couldn’t see one another. As a result, telephone users had to develop new conversational conventions for dealing with the different challenges posed by the telephone.

In 1884, a writer identified initially as A. E. warned in *Lippincott’s Magazine* of some of the linguistic problems associated with the telephone’s popularity. The telegraph, first publicly tested by Morse in 1844, had always been a vehicle for business communications, or personal messages of a more than social nature. Non-business telegrams were formal and serious, bringing news of illness, accident, or death. Furthermore, the telegraph message itself is rendered impersonal by the manner of its transmission. As A. E. put it, “A telegram passes through so many hands . . . that one does not look upon it as the utterance of a friend” (A. E. 1884).

The telephone, on the other hand, is much more humanized (though some people still consider it a strange and unnatural communication device). It allows us to talk freely, and more or less privately. A. E. recognized the need for developing a suitable code of telephonic conventions to make up for the fact that we are not face to face when we speak on the phone. For one thing, he complained that telephone communication was bald and thoroughly unsubtle, unable to convey the nuances and tones of ordinary speech on those early instruments.

Schematic drawing by Bell of the first successful phone device, which he then tested with his assistant, Mr. Watson. [Library of Congress]
Even the first telephone conversation had its problems in this regard. Thomas Watson had no trouble understanding Alexander Graham Bell when he shouted his famous line, “Mr. Watson - Come here - I want to see you.”

Bell acknowledges that he had to shout the first telephone message. [Library of Congress]

But when Bell and Watson changed places, and Watson read a passage from a book, Bell could not understand Watson’s words. Bell wrote in his notebook,

It was certainly the case that articulate sounds proceeded from [the receiver]. The effect was loud but indistinct and muffled. If I had read beforehand the passage given by Mr. Watson I should have recognized every word. As it was I could not make out the sense, but an occasional word here and there was quite distinct. I made out “to” and “out” and “further”, and finally the sentence “Mr. Bell Do you understand what I say? DO-YOU-un-der-stand-what-I-say” came quite clearly and intelligibly. [Bell 1876]
Sound quality was a problem with early phones, as was the absence of a visual dimension to the conversation. In his critique of the telephone, A. E. noted that we cannot smile across the wires. He further complained that telephone novices felt the need always to say something clever. And, while today it has become perfectly acceptable to ignore those sitting or standing nearby and speak exclusively on someone at the other end of the telephone, early phone users were obliged to juggle their attention, acting as intermediaries between those who were in the room with them, but not on the phone, and the party at the other end.

But worst of all for A. E. were the newly-developing conventions for beginning and ending phone calls. Some sort of hailing device was needed for the first telephones, not just to start a conversation, but to signal an incoming call. The telephones developed in 1876 had no ringers, and Alexander Graham Bell and Thomas Watson, both Scots, signaled that they wanted to talk to one another over the phone by shouting “Hoy” into the instrument. Hoy was an old-fashioned expression for calling attention to something. On the farm in England and Scotland, hoy was used to call hogs, and in nautical circles, hoy and its variant, ahoy, were common for hailing ships.

Aware that shouting into the phone was an impractical way to signal an incoming call, in 1877 Thomas Watson crafted a hammer to serve as a signal. The caller pushed a button which caused the hammer to strike the diaphragm of the phone. At the other end of the line this thumping noise was recreated just as vocal sounds were reproduced. If
your phone thumped, you knew you had a call (ACMI, n.d.). By the next year, the hammer had given way to a ringing bell, and even today we speak of “ringing someone up,” and we say “the phone is ringing,” even when incoming calls are signaled by “ringtones” that are aren’t bells at all, but songs, sound effects, flashing lights, or vibrations.

Still the problem remained, how do you answer a ringing phone? Bell and Watson may have kept up with their quaint “Hoy!” when answering a call, but everybody else had already switched to “Hello,” the expression that quickly became the universal telephone greeting. To Americans hoy may have seemed too old world, too nautical, too rural. Or maybe it was just too unfamiliar. In any case, they answered their phones by reviving another rare and archaic hailing term, hello.

Hoy and hello are similar sorts of words. Hello is one of a set of traditional English exclamations such as hallo, halloo, hollo, hullo, used to get someone’s attention (“Hello! Waiter! Bring me something to drink!”) or to express surprise (“Hello, what have we here?”). Hello had already surfaced as a common and effective phone greeting as early as 1877, when Thomas Edison wrote to the president of Pittsburgh’s Central District and Printing Telegraph Co. that the telephone didn’t need a bell or ringer to signal a call, “as Hello! Can be heard 10 to 20 feet away” (Edison 1877). Edison apparently changed his mind about ringers, for in 1878 he received a patent for an improved telephone ringer system. It was the same year that Pittsburgh got its telephone system, presumably one equipped with Edison’s signaling bells.

Despite the success of Hello as the greeting of choice for the new telephone, critic A. E. found it thoroughly “hideous” and inappropriate. Not much better in his eyes was the more “elevated” greeting, “Who is it?” or the more abrupt “Well?” both of which sound cantankerous to our more -practiced ear. Sometimes A. E.’s telephone was answered, “How do you do?” a very polite greeting, to be sure, but one which wouldn’t work today.

A. E. disliked the use of good-bye to terminate calls even more than hello and its feeble substitutes: “Is this word – which trembling lips and sobbing breaths have found so hard to utter from time immemorial – to be employed to let the baker know that one loaf of bread is enough, and that we are to give no order for cake?”

In A. E.’s view, good-bye is far too elevated for the mundane telephonic meaning it conveys, which he paraphrased as, “Go, now, about your business, I am going about mine!” In preference, he asked readers to adopt a less familiar word, perhaps borrowing one from another language, or taking something from English like “Hold!” or even “Enough!” – both rather dramatic terminators. Better yet, for A. E., would have been an invented word, for use only in the telephone context. Unfortunately he offered no suggestions for such a coinage.

Good-bye, a clipped form of God be with you, had served for centuries as a formula of leave-taking – Shakespeare uses it. It may have been more formal, as A. E. maintained, but even in the seventeenth century it was considered far less dramatic than farewell, and by the later nineteenth century it was commonly used to signal everyday partings as well as more momentous journeys.

A. E. was not the only person to dislike all the new telephone hello-ing and good-bye-ing, but by 1884 telephone users had already established hello and good-bye as the conventional ways to begin and end a call. The Oxford English Dictionary records
Rudyard Kipling using *hello* to answer the phone in 1892. In 1889 Mark Twain refers to telephone operators as *hello-girls*, a phrase that became extremely popular, though a 1903 article in *Booklovers Magazine* observes that the phone company forbade “hello girls” from saying “hello” when making calls. The greeting, while firmly established, was still considered too familiar or informal. The telephone *hello* and *good-bye* became so entrenched that they soon formed the normal, polite greetings and partings of face to face conversation as well, a dramatic example of technical language interfacing with real life.

**Dial M**

Early phone users were troubled by administrative inefficiency as well as poor sound quality. Under strict orders from their supervisors to keep lines open, operators regularly interrupted calls to ask, “Are you through?” For variety, disgruntled callers charged, they would disconnect the call and then ask, “Weren’t you through?” *The Critic*, reporting in 1895 about the invention of the automatic telephone (a precursor of the dial phone which, like today’s touchtone phones, used pushbuttons rather than a central operator to connect calls), cheers at this instance of machines replacing humans: “There will be no h elloing girl to ask you every minute, ‘Have you finished?’ while you are straining your ears to hear what the person you are talking to is saying.”

Anyone who has used a telephone lately knows that just about everything telephonic has been automated, and operators are few and far between. The telephone has so insinuated itself into our daily lives that we tend to take it for granted. But the instrument still influences our use of language. 411, the number which we used to dial for information, has become a slang term for ‘information’ in general. “Give me the 4-1-1” means “What’s new?” Recent developments in phone technology require innovative terminology. Among the new words that we need but haven’t been able to invent in today’s English is a replacement for *dial* when we make a phone call on a pushbutton phone.

According to the *OED*, the English word *dial* probably comes from Latin *dies*, ‘day,’ and its initial use revolves around sundials, clocks, and time-telling. From the outset dial has been associated with round or circular shapes: time is frequently depicted as a wheel rotating, and the clock face mimics this circular pattern. Instrument dials, or gauges, also started off as round, with rotating pointers like the hands of a clock.
The dial telephone represented the first step in automating telephone technology, eliminating the need to place most calls through an operator. In what was surely the first instance of dialing for dollars, Almon B. Strowger, a Kansas City, Missouri, mortician, invented the dial telephone in 1889 because he thought that the local phone operators were diverting his calls to the competition. Strowger’s dial phone allowed callers to dial their calls on the round face plate of the instrument, bypassing the central exchange and connecting directly with the party they were seeking. Today the widespread use of the pushbutton phone, with its rectangular key pad instead of a dial, is making the verb *dial* obsolete in the eyes of purists who still think dials must be round. You don’t really *dial* a number on a pushbutton or touchtone phone, they argue, you *punch*, *press hit*, *key in*, *push*, *enter* and *press* a phone number. While I’ve seen at least one holdover dial pay phone whose instructions told the user to *push* the number before inserting any money, suggesting that the days of the word *dial* may be numbered, it’s not dead yet. In an all-out effort to cover all the bases, the instructions for a recently-purchased G. E. telephone read: “*Dial* the desired phone number by *pressing* the numbered *push* buttons” (emphasis added), and the instructions for my 2003 Motorola T-730 mobile phone tell me to *press* the number keys on my phone’s keypad (they definitely don’t call it a dial) in order to *dial* a call. Still, it is difficult to imagine a remake of Alfred Hitchcock’s classic film being called *Push M for Murder*.

![Ray Milland](image)

Ray Milland dials the telephone to set in motion the murder of his wife in the 1954 Hitchcock classic, “Dial M for Murder”

**We are omnipotent**

If telephone conversations tended to be public at the outset, telephones themselves were private property. The phone company owned the lines going into homes and businesses, and it often owned the telephone set as well, confiscating those that were used improperly. Failing to pay for services was an even more serious offence than cursing or kissing. Telephone service was a members-only club, and subscribers weren’t supposed to let anyone else make calls, on penalty of loss of service. With operators listening in, it was possible to tell when an unauthorized voice was on the line. In 1885 Southern Bell
cut off one customer’s service for allowing friends to use his phone. And the phone company sued a Washington, D.C., hotel for allowing guests to use its telephone to book theater tickets (Marvin 1988, 104-05).

The situation was eased by the introduction of the pay phone, which allowed telephone access to anyone with the right combination of coins, and which permitted the phone company both to lower its vigilance and to increase its revenues. But the pay phone itself brought new problems: anyone with a coin to drop in the slot could now gain entrée to the homes and offices of regular subscribers who paid far heftier fees for their own telephone service. With the spread of the public pay phone, the telephone took its place in the class struggle: depending on your point of view, it was either a democratizing agent and social leveler or a subversive device giving the riff-raff access to the A-list.

Long before telemarketers began disrupting American family dinners, critics of the telephone observed that the instrument permitted strangers who would never gain access through the front door to enter the home over electric wires. Phone calls could be made without invitation, and their timing was at the discretion of the caller, not the person called.

Preventing unwanted and intrusive calls remains a top issue for Americans today. Cell phones now come with caller ID as standard, and the feature is common on home phone service. Additional privacy services discourage calls from blocked numbers, and the more than 56 million people who signed up for the national do-not-call list as soon as it became available confirm that while people want the universal connectivity that telephones offer, they also don’t want just anybody calling them.

Random callers weren’t the only ones who intruded by means of the telephone. Stories were rampant about the much-feared but mythical “phone police” who secretly monitored the voltage on subscribers’ phone lines in a search for illegally hooked-up extension phones. For most of the twentieth century, AT&T was the telephone utility in the United States, and while it didn’t actually break down doors looking for contraband, the company frequently behaved the way monopolies do when they are both essential and have no competition. The comedian Lily Tomlin created a series of popular routines featuring Ernestine, the telephone operator who whimsically disconnected entire cities from the grid – “Just lost Peoria” was one of her popular lines. Ernestine’s response to a dissatisfied customer, “We don’t care. We don’t have to. We’re the Phone Company!” was funny because it rang true (tvacres.com/comm_ernestine.htm). Using a line that many imagined to be the phone company’s motto, Ernestine ignores an imaginary complaint by the writer Gore Vidal over some unpaid phone charges, telling him, “We are omnipotent” (lilytomlin.com/video/tv/LaughIn1969/ern2veedle122969/ern2veedle.html).

Going to the phone
One of the mantras of this book is that new word technologies tend to spread by convincing users that they can replicate the older ways we use words, only better. The technologies have to accomplish this before they can make their real contribution, opening up new ways of doing things with words. Computers mimicked typewriters; printing presses mimicked manuscript writing; and writing itself mimicked speech.

Once the novelty of using the first telephones wore off – and it wore off quickly as the phone passed from innovation to useful to essential – people expected the telephone to parallel their experience with face to face conversation. This included
increased privacy, so callers could speak freely, or simply so they could be shielded from room noise and better hear the call. The location of phones was limited by their wiring, and creating privacy required remodeling interior space in order to relocate phones and callers away from high-traffic areas into separate, dedicated, and sometimes sound-proofed rooms (the designation telephone call room appears as early as 1885), and eventually into smaller telephone booths (1895) or telephone boxes (1904).

Users of telephones demanded flexibility as well as privacy. Instead of bringing a person to the telephone, they wanted the instrument brought to them. Soon telephone extensions (the expression appears first in 1906) allowed conversations to take place away from the main phone access point, in more secluded parts of a home or business. But convenience issues persisted alongside privacy concerns. Even with multiple extensions, for most of the twentieth century the telephone anchored callers in space. With phones fixed to walls or booths, or sitting on desks or tables, callers had to physically “go to the phone” to make a call.

Once you were at the phone, you were pretty much tied down till the call was over. The introduction of longer phone cords allowed business callers to move from desk to desk, or to pace about the room as they talked. This was only a partial solution to the mobility problem, and not entirely effective, since longer cords had to be constantly untangled. With these extended leashes available on home telephones, teenagers could retreat to closets or bathrooms, away from prying parental ears and sibling taunts (and parents could take calls out of their children’s earshot).

Cordless phones, which appeared around 1980, offered an even longer leash, and one that didn’t tangle. These telephones were expensive (up to four times the cost of a corded phone), with poor sound quality and limited range. But their quality improved quickly and cordless phones soon became both affordable and popular, expanding the phone user’s orbit, allowing callers to choose where to take their calls, even outdoors so long as they didn’t stray too far from a base station. Cordless phones now predominate in store telephone displays, and it is the cordless phones, not the corded ones, that carry the latest bells and whistles. But cordless calls prompted new privacy concerns: at first they could be intercepted on purpose or by accident, and even though technological improvements through the 1990s have shielded cordless calls from electronic snoopers, they are not considered secure.

Mobile phones complete the cycle, offering the widest range of physical locations for calling yet, while binding the user physically to the phone more completely than any desk or wall unit ever did. You can place or receive a phone call wherever the microwave telephone signal can penetrate, whether in secret or in public. Callers may choose from a total, telephone-booth like isolation, to the full frontal telephony of the airport gate area or the restaurant table. But unless you turn that phone off, wherever you go, whether it’s into the deepest inner sanctum or right out there in front of all your students, you can’t escape its ring.

The cell phone is still evolving. It seems to be moving toward the imaginary ideal of the Star Trek communicator – another example of what users seem to want influencing the direction of the technology: just slap the little badge that’s pinned to your chest and you’re connected to the person you’re looking for, or perhaps to your computer. If phone technology could only develop a working version of the cone of silence, the shield on the television series “Get Smart” that descended from above and immediately rendered
public speech totally private and secret, the problem of loud cell phone users on sidewalks or in commuter trains would be solved.

Cutting the cord

Mobile phones do more than redefine privacy issues that had been raised earlier by the wired telephone. The mobile literally cuts the cord that anchored two callers physically in place. The cordless phone had already done that to some extent. With a cordless we can carry on some other activity that requires moving about, for example cooking, while talking, or we can simply meander while we talk, as many people do – though if they were speaking face to face they’d more likely be standing still. But the cordless phone still confines us to traditional home- or office-based telephone milieux. The mobile phone goes a giant step beyond that, allowing us to carry the phone call into physical spaces and social situations where previously it had no presence. And that too is affecting how we talk to one another.

One day, as I was strolling across a California campus where I was giving a lecture, I heard a cell phone chime. Pavlov would have smiled as twenty students nearby immediately dived in their backpacks to see if the call was for them. Mobile phone owners expect to be called when they are in public, and the game of “Whose phone is ringing?” is becoming increasingly common wherever groups of people gather.

It is common now as well to see people together in an animated group, but on closer inspection we discover that each person is talking on a phone to someone else. At least I presume they’re talking to someone else. The Cher/Dionne scene from “Clueless” has played out several times in my own experience: I’ve gotten separated from someone in a large store; I call them to find out where they are; and as we talk and walk the aisles toward our rendezvous, we suddenly come into view of one another. There is often a short seguè as we figure out how to disengage from phone call mode and resume face to face mode.

Before cell phones, people in a group could talk to one another face to face, and people alone could give full attention to their immediate surroundings: looking at the scenery, driving the car, perusing the menu, observing the comédie humaine. Now the
Dennis Baron, *Cell phone scenarios, 20*

Cell phone connects us across space, freeing us from our local context just as land phones did when they first came on the scene.

Cell phones can be a leash as well as a liberation. They provide both a new way to be alone in public, and a new way to connect publicly when we are alone. We walk down the street concentrating on nothing but getting to our destination, and suddenly we’re on the phone. And when we’re with a group in public, we may use our mobile phones to leave the group, temporarily, or to extend it. It’s not so unusual for four people to sit together at a restaurant table talking to four people somewhere else on four mobile phones, and through the magic of speed dial and the conference call, six degrees of separation routinely collapse into one.

Like their predecessors, cell phones raise privacy issues. One cell phone television ad shows a proud dad calling in a play-by-play account of a Little League game to a grandfather who can’t be there. In this staged version of a ball game, other cheering parents are oblivious to the caller (nor are they harassing the umpire or the players on the opposing team). But actual cell phones used in public can create an instant and often reluctant audience.

Being forced to overhear a mobile phone call is becoming a routine experience. Consider this example:

One morning at the local coffee bar, a woman came in already talking loudly on her phone. While she ordered her latte, she took a second call and then switched deftly between her two callers and the barrista, at times involving all three in what seemed for her to be a single, seamless conversation. But the rest of us in the coffee line were also auditors, for talking on a cell phone brings out an emotive voice that plays both to the caller on the other end and to the crowd. People bare half a conversation to an audience of strangers, a conversation that is sometimes uncomfortably personal for those within earshot, though it is even more likely to be boring (who cares what your mother ate for lunch?) or simply distracting (I can’t hear the person I’m with because the cell phone talker is so loud). But juggling the phone and a latte proved a harder bit of multi-tasking, and the caller had to abandon her calls, if only temporarily, in order to sweeten her drink. As she left Espresso, though, the phone was ringing again, and she walked to her next destination sipping her drink, swathed in one or more animated conversations with old or new callers.

Of course not all cell phone users are exhibitionists. Some mobile callers are noticeably abashed at the public aspect of the cell phone. One student of mine reported that she was so reluctant to conduct even the blandest phone conversation in front of strangers that she not only whispered into her cell phone, she also tried to minimize her physical profile, hunching over the phone, turning away from others, covering her mouth as she talked. But to her chagrin she realized that this posture-altering privacy behavior only served to draw more attention to the fact that she was walking down the street, talking on the phone. In contrast, she felt none of the same discomfort when using her home phone, even a cordless one, with others present in the room, perhaps because whispering and other privacy-seeking behavior seems more normal with the older phone
technology, or perhaps because when this student is in her apartment she is not usually
talking in front of strangers.

Can you hear me now?

People on cell phones are loud. They speak louder on the phone than they would if they
were talking to someone standing right next to them. Sometimes quite a bit louder.

Several explanations are put forward for this loud talking, none of them entirely
satisfactory. For one thing, reception on early cell phones was not all that good, and as
with the first wired phones and the first cordless ones, callers had to increase volume and
enunciate clearly just to push their voice across the ether. Perhaps once these callers got
the loud-talking habit, they stuck with it. But that doesn’t account for the fact that new
mobile phone users, with today’s improved phones, are also loud.

Some of the loud talking on cell phones may be pure exhibitionism. Those who
were the first on the block to get a cell phone may have felt the need to call attention to
their new toy by making loud calls in public places. But now mobile phones are common
enough that people don’t have to flaunt them. In fact it’s those who refuse to use mobile
telephony who are considered, well, weird – they’re certainly stranger than computer-
phobes.

I think that much of the explanation for this loud talking is the fact that we often
use cell phones in public places, both indoors and out, forcing us to overcome
background noise from traffic, machinery, and other talkers nearby just to hear our own
voice. And we need to hear ourselves speaking, to monitor our own sound production, in
order to communicate effectively with the person at the other end. In addition, there may
be a design issue: today’s mobiles are typically much smaller than land phone receivers,
so that if you hold the speaker to your ear, the microphone my be farther from your
mouth. Placing a small phone squarely over your ear, so you can hear best, you may be
tempted to over-project your voice in order to reach the microphone.

But even indoors, in a quiet place, we still tend to speak into cell phones as if our
listeners were having trouble hearing us, so overcoming background noise can’t be the
only factor in the kind of loud talking that can turn even the most private of conversations
into a public oration. Two additional factors must be in play: a partly-conscious attempt
on the part of cell phone users to integrate bystanders into the conversation, and a partly-
conscious pretense by cell phone users that no one nearby can hear them.

Both of these conversational tactics are extensions of face-to-face communication
behavior. It’s not all that unusual for people to engage in conversations where they speak
both privately to another individual they’re with, and publicly to bystanders who happen
to be in the vicinity. We do that sometimes when we talk to children, or when we’re in a
confined space with strangers, such as an elevator. Perhaps loud talking on the cell phone
is an extension of this sort of dual-audience behavior. But that still doesn’t account for
most of the public private calls that have drawn my attention when I was otherwise
occupied, like the woman ordering her latte.

So my final explanation of loud talking is this: I think that the cell phone is
actually tricking callers into creating a little private sector within an otherwise public
space, a cone of silence, if you will, where callers become so engrossed in their phone
call that they’re really oblivious to the fact that they have another audience. These callers
aren’t showing off or asking us to join in the fun. Quite the opposite: they become
annoyed if the public audience suddenly invades the private space they are inhabiting, perhaps by shushing the caller or even interjecting a comment indicating they’ve overheard the conversation. Instead of apologizing for having injected a private conversation into a public space, loud-talking callers think that bystanders have purposely hornsed in on a personal exchange. My phone calls, after all, are none of your business, and I’m not embarrassed I’ve spoken too loudly but annoyed that you have been so rude as to listen in.

**Leave a message at the beep**

Just as the telephone alters our communication behavior, changes to the telephone alter our telephone behavior. Cell phones make us talk louder, and in more places, both public and private. These phones also give us freedom of movement, up to a point. Even though they have good quality sound reproduction, signal strength is still a problem and we often have to move around – especially if we’re indoors – to find a place where reception is clearest and ambient noise minimized. Add-ons like answering machines, call waiting and caller ID disrupt the way we use land phones as well, at least until we learn how to adapt to them.

The usefulness of the telephone for business was immediately apparent to many, though as I mentioned earlier, Samuel Morse was not alone in his belief that no one would rely on a technology that did not create a written record of the transaction. The idea of recording phone conversations spurred Edison’s work on the phonograph, in 1876, though Edison quickly shifted to focus on the entertainment value of sound recording, and it was not until 1898 that Valdemar Poulsen, a Danish engineer, patented the *Telegraphone*, a wire recorder for making magnetic recordings of telephone conversations. Reducing speech to written text is still a major goal of computer developers, perhaps the last great hurdle in the quest to reunite the written text with the spoken voice from which it diverged thousands of years ago.

The purpose of the telephone answering machine was not to record entire conversations, like the Telegraphone, but rather to allow callers to leave messages when no one was home. It was invented in the 1930s, and was initially popular with orthodox Jews who could not answer the phone on the Sabbath. But practical devices like the Ansa Fone, invented by Kazuo Hashimoto, didn’t appear in American offices until 1960. Once the ten pound PhoneMate Model 400 came on the scene in 1971, answering machines began to spread rapidly. Soon they became common enough in real life to become a staple of TV.
The popular private detective series “The Rockford Files,” which debuted in 1974, opened with an answering machine sequence: a ringing phone; a click as the answering machine turned on; Jim Rockford’s pre-recorded message; a beep; and the caller’s often unintentionally humorous response.

The PhoneMate Model 400, introduced in 1971, weighed ten pounds and stood 12” high. It came in two parts and ran on 4 D-cell batteries. [recording-history.org/HTML/answertech11.htm]
Dennis Baron, *Cell phone scenarios*, 24

Answering machines appeared in homes as well in the 1970s, and the popular reaction to the new technology was predictable. Owners of the device, happy that they would miss fewer calls, experimented with a range of messages, from the utilitarian explanation that always ended with, “Please leave a message at the beep” to something more personalized, clever, or even outrageous.

But callers who encountered the new answering machines didn’t readily warm to the idea of talking to what seemed more a robot than a person. They became flustered or annoyed when confronted with a taped voice rather than a live one. Used to treating phone calls as a form of dialogue, where feedback from an interlocutor helps us focus a thought, we have trouble producing the canned monologue that phone machines require of us. Confronted with new-fangled answering machines, some early callers hung up in panic because leaving a message seemed a lot like talking to oneself, while others refused to play the message game because they found talking to a machine absurd or distasteful. Messages frequently got cut off mid-sentence because early answering machines limited speaking time to twenty or thirty seconds. Even though such time limits are no longer common, I myself still tend to rush through my message breathlessly, garbling words or forgetting key details. And I still have trouble figuring out how to end the message. An abrupt “good-bye” seems both impolite and ineffective, since it seems to invite a response from the person called, and even when my message manages a decisive and professional tone, I generally undercut that by trailing off incoherently when I’m done.

Answering machines were not as impersonal as getting no answer at all, but many people seemed to prefer endless ringing to what they saw as the mechanical distance implied by the answering machine. All that has changed. The same people who thought that answering machines might put an end to human conversation now can’t live without voicemail, the more professional-sounding term that arose around 1980 for systems that store and retrieve messages. Even though answering machines have become the norm, not the exception, when I leave a message I still come away feeling that I could have been more organized, more competent – maybe I should have written a little script before I called. But if the person I’m calling is out and doesn’t have a machine, I think to myself, “How rude.” And I admit that I too check my messages the minute I get home or turn on my mobile.

There’s a lot of information about the history of answering machines on the Internet. But when I tried to discover when call waiting was invented (apparently in the early 1970s), and when it became widespread (the mid-80s), I found endless numbers of posts loudly cursing both the inventor, whoever he might be (they all assumed it was a he), and the invention.

I for one couldn’t wait to sign up for call waiting. If I’m expecting a call, with call waiting I don’t have to worry about tying up the phone while the person I really need to talk to gets a busy signal. Putting one caller on hold or hanging up to take another call is really no different from going off to answer the door or deal with some other unavoidable interruption. Even so, plenty of people think call waiting is at least as rude as loud talking on a cell phone.

The first call waiting systems signaled incoming calls with a harsh beep that both parties in a conversation could hear, and I admit that was truly disconcerting. For the past few years, though, only the caller receiving the new call gets beeped; the other person on
the line notices either a brief interruption in the conversation or nothing at all. But even though the rude sound is gone, once callers have got your attention, they want to keep it until they’re done with you. They hate it if you say, “Excuse me, I’ve got to see who this is,” because call waiting implies that some calls are more important than others. But like it or not, that’s true. And now that we have caller ID with call waiting, it’s easy to ignore a call you don’t need to take, or to explain to your caller that you have to take a particular incoming call from your child, mother, broker, boss, doctor, or favorite telemarketer.

Who’s calling?

Whether or not we like Caller ID, knowing who’s on the other end when the phone rings changes what we say when we pick up the receiver. Before Caller ID, subscribers to the telephone service couldn’t know for sure who was calling them when their phone rang. That’s why finding an appropriate greeting had been a problem. Today, face-to-face encounters typically start with some version of “Hi, how are you?” When someone’s at the door, we answer the knock with, “Who’s there?” or “Who is it?” But ringing phones were different enough from chiming doorbells that “Who is it?” didn’t quite work, and “Hello” was drafted to fill the void created by the new technology.

Sure there are variants on “Hello.” You can say something less formal, like “Hi” or “Hiya” or something more abrupt, like “Yes?” which calls attention to the fact that you have been interrupted, or something more informative, like “McCarthy residence, Joseph R. McCarthy, Jr., speaking.” Then there was the well-known opening line from the 1940’s radio show, “Duffy’s Tavern,” which began each episode with Archie the manager answering the phone, “Duffy’s Tavern, where the elite meet to eat. Archie the manager speaking; Duffy ain’t here.” The caller was always Duffy, a fact which rendered Archie’s attempt at a businesslike greeting superfluous, Duffy not being the kind of owner to test his bartender’s telephone etiquette. But I like to think that even in an updated version of that show complete with Caller ID, Archie would still pick up the phone and announce to his employer, “Duffy ain’t here.”

So far as telephone etiquette goes, whatever you say when you answer the phone has two goals: completing a communication channel opened by the person calling, and getting the caller to identify him or herself. That caller doesn’t always have to give a name, though this is the most common response to “Hello.” Someone whose voice you recognize instantly may simply say, “It’s me,” which would be stating the obvious. Or they might just begin talking. Rude responses are also possible, especially with prank calls, or callers who know you’re trying to avoid them. Then there are the harassers and the breathers who disturb our peace and unsettle our equilibrium. I’ve gotten my share of these, although a few times when I’ve answered the phone to hear breathing on the other end, it turned out to be a very young child trying to figure out what to do next.

But the invention of Caller ID, one hundred years after the introduction of the telephone, added a new wrinkle to the calling game, one which affects how we answer the phone. With Caller ID, we know who’s calling. Or at least we know the phone number of the person at the other end. This takes some of the mystery out of the phone call, but it also poses a dilemma for the person whose phone is ringing:

Answering with “Hello,” and letting the caller identify herself with, “This is Sarah,” while preserving a time-honored telephone ritual, seems deceptive if you already know it’s Sarah calling. But skipping the
traditional, tentative “Hello?” and going to the direct “Hi, Sarah,” risks throwing the caller off. “How did you know it was me?” Sarah might ask, followed by the realization, “Oh, you have Caller ID?” which makes the caller feel like some kind of sneaky spy, just the kind of person who’d eavesdrop on other people’s cell phone conversations.

There’s another wrinkle. Once Sarah becomes accustomed to the fact that you have caller ID, she may expect you to know she’s calling. But if you grab the ringing phone and answer “Hello” without checking the ID first, you will expect Sarah to identify herself, while she has assumed that Caller ID has done that for her. It’s the kind of phone muddle that Ernestine could have some fun with.

Caller ID services were first offered in New Jersey in 1987, but now they are common around the United States and are found in other countries as well. Caller ID makes us wonder what we ever did without it. Those tense scenes in kidnap movies where the police try to keep the ransomer on the line long enough to trace the call now seem hopelessly antique.

Cell phones routinely display the caller’s number, though they don’t typically supply the caller’s name unless it’s in the cell phone’s address book, in which case they attach a name as well. I haven’t heard any complaints about Caller ID – except perhaps from those telemarketers or phone terrorists who’d like to mask their identity. There are some social service agencies and hot lines that need to preserve the anonymity of their callers by promising not to use Caller ID, but for just about everything else, by identifying the caller, the service makes getting a call much like getting a letter with a return address, or to go back to a nineteenth-century social practice, reading the name of your visitor on a calling card before actually meeting with the person.

**Phone fashion**

![StarTac 3000](image)
Home phones, like their cellular counterparts, went the fashion route even before the breakup of the telephone monopoly. The Princess Phone represents the Bell system’s attempt to turn the telephone into a piece of home décor. The name and the pastel colors pitched the Princess at women and girls, especially teen-agers. A Barbie edition of the Princess phone reinforced this marketing ploy, while Trim Line phones provided a gender-neutral alternative to telephone accessorizing. The advent of pushbutton phones led to a revolution in phone styles, with everything from reproductions of classic Euro-phones to novelty items like the high-heeled shoe phone, which unlike the shoe phone of special agent Maxwell Smart, isn’t practical either for walking or for making calls. Most novelty phones – the Lego phone, beer can phone, the phone in the shape of a football, or of a football helmet – share this same disfunctionality, and a walk down the phone aisle at Best Buy or Target reveals lots of cordless phones, lots of cell phones, less than a handful of corded telephones, but a nary a phone in the shape of an M and M, a Mickey Mouse, or a pair of lips, though at 1-noveltyphones.com, you can buy a “Hot Lips” red phone, “fully modular with redial and tone/pulse switchable,” only $38.99.

Cell phones too have become fashion items. Like wired telephones, cell phones were originally marketed to business customers. Their high price precluded casual use except as a toy for the rich. Dedicated car phones, which have all but disappeared with the expansion of mobile telephony, were an essential for business people who spent much of their time in the car, but as a luxury item they were also a selling point for high-end automobiles.

Cell phones remain a status symbol. As the phones got smaller, they could be stowed in pocket or purse. Motorola’s Star Tac, the first of the truly pocket-sized flip phones, came with a belt clip, a now a standard item, the assumption being that businessmen would wear them at the hip, like a gun. With a list price well over $400, the
Dennis Baron, *Cell phone scenarios*, 28

first Star Tac also came with a neck cord and was pitched to women of a certain economic status as wearable jewelry. I actually knew a local well-to-do businesswoman who was the first on her block to get a Star Tac. She wore her phone around her neck as if it were a diamond. Unfortunately it looked more like a polished lump of coal, and she soon relegated the phone to her Gucci purse.

Though some still wear their phones around their neck or on a belt, most women I know have opted to keep their phones in a purse, as most men I know now stow phones in their pockets. That can make answering a call awkward. When a phone rings, it’s a common sight to see men patting their various pockets and women digging in their purses, zipping and unzipping compartments, trying to get the call before it goes to voice mail.

![The Vertu cell phone starts at $6,500](image)

Phone fashions have concentrated on the sorts of options that customers will actually use. Phones can be accessorized with leather cases, colorful faceplates, or antennas with flashing lights, all of them on display at kiosks at most shopping malls. Japanese teenagers personalize their phones with *strappu*, plastic fobs in a variety of designs that attach to the phone with a strap. But perhaps the most popular add-ons are downloadable ringtones. These come in a variety of musical styles, mostly pop songs, though there are some classical and jazz themes available, as well as songs from movies and television. You can also get college alma maters, ethnic music (one download site specializes in bangra), voice tones, or a variety of special sound effects, though it may not really be wise to buy a ringtone that makes a mobile phone sound like a semiautomatic weapon.

In fact the ring tone has become the hottest way to personalize one’s phone. Services that sell ring tones are increasing their offerings almost daily, and in several instances ring tone versions of a song, though they only play for about twenty seconds, have made more money than the original CD release of the tune. The ring tone even threatens to become a new art form. Multimedia artist Golan Levin wrote a symphony
which included ring tones from audience members’ mobile phones, and the Finnish phone manufacturer Nokia commissioned the composer Riuichi Sakamoto to write an original set of tones for its model 8801. Patrick Parodi, chairman of Mobile Entertainment Forum, a London-based trade association, sees the ring tone as a kind of personal branding, calling it “the device that identifies us most, along with our cars” (Ryzik 2005).

Individually decked-out phones have practical as well as decorative value, since, to paraphrase the warning at airport baggage carousels, many phones look alike. And personalized rings solve the problem of identifying just whose phone is ringing in a crowd. All this is a long stretch from the days when Ma Bell was the only phone company and the only ring available was the one that even on its lowest setting was loud and annoying.

![Motorola Razr Phone](image)

The Motorola Razr Phone was heavily marketed as both fashionable and (eventually) affordable

Even though cell phones are now common and affordable, they can still be used to show off just how rich you are. The Star Tac necklace didn’t catch on among the fashionistas, but it may have been ahead of its time. Gucci made one telephone necklace for $105 – more than what most cell phones cost these days (I found it on eBay, so for all I know it’s a Gucci knock-off). And the *New York Times* “Sunday Styles” section ran a piece on the City Loop, a woven leather lanyard with silver phone clasp ($85). Its $125 upgrade adds an ear-bud wrapped in matching leather and a phone plug for hands-free talking in style (Tien 2004).
Those interested in really conspicuous consumption can buy custom-designed, jewel-encrusted cell phones, like the $125,000 Motorola phone covered in sapphires and diamonds, or the more modest Nokia Vertu cellphone, $15,560 in yellow gold, which comes with a year of concierge service (Schiesel 2004). A platinum Vertu phone sells for about twice the price, while stainless steel is a more affordable $7,900; leather-covered models are available as well (www.vertu.com). Gwyneth Paltrow’s handmade Vertue came in at more than $23,000 (Salon 2002). Hong Kong has been the biggest market for high-end mobiles, and one source reports that the Asian market accounts for more than one third of luxury phone sales.

If you’re not trying to get your picture in “Sunday Styles,” you can get a cell phone necklace for as little as $12.95, available in any color as long as it’s black. A driver’s model adds mike and earpiece to the necklace, and comes in gray. Mobile-trends.com markets these inexpensive phone necklaces to women, and it also offers a line of manly, zippered lanyards. The web-page ad for this model, also gray, shows a contractor with hard hat, rolled up sleeves, and a clipboard, sporting a phone around his neck, proving that you don’t have to be metrosexual to accessorize your cell phone.

One final scenario

It’s June, 2004, and I’m in Kansai airport in Japan, where people have gone wireless big time. But during a lull in the constant phone chatter, what I hear is the clicking noise of countless agile thumbs tapping out text messages on mobile phones.

SMS, or Short Messaging Service, which is the formal name for text messaging, has been around since 1991. Though it is just starting to catch on in the United States, in other parts of the world texting is replacing calling for sending greetings and arranging dates and appointments. And for teens who can’t go too long without an Instant Message fix, texting lets them communicate even when they’re away from their computers. According to Nokia, the Finnish mobile phone manufacturer, the volume of text messaging doubled between 2002 and 2003, to 450 billion messages, and according to a British survey, the under-25 set is actually prefers texting to calling (“Young prefer texting” 2003).

Although most phone keypads still combine three or four letters per key, teenagers don’t seem to mind the extra steps it takes them to tap through to the letter they
want as they quickly string their words together, using shortcuts like CU for “see you,” D8 for “date,” and 2day for “today,” as well as simplified spellings like cuz. Some children report that they text on their cell phones more than they talk, and teachers have begun complaining that text acronyms and informal spellings are appearing in students’ written schoolwork. Critics of such youthful indiscretions warn that cell phones are leading children toward illiteracy, but a group of British psychologists studying eleven-year-old who text frequently reported that in fact they found their subjects to be more aware of phonetic distinctions and more linguistically creative than a non-texting control group, and the texters performed better on standard spellings tests as well (Frean 2006).

Despite this clunkiness, and the size limitations for text messages (they may contain no more than 160 characters), text messaging as a substitute for email is on the rise for business use as well (“Businesses” 2002). and if users switch to Blackberry-like phones with full, if miniature, keyboards, thumb-typing is likely to become an essential skill for the ambitious executive.

The texting craze is only the latest step in the march of technology toward blurring distinctions between speech and writing. As voice-to-text computer technology anticipates moving us directly from sound to print, the telephone is shifting its focus from voice communication back to the transmission of writing across the airwaves. The telephone has at last become a writing instrument, putting to rest Samuel Morse’s concern that telephone conversations are destined to disappear into the ether. But messaging doesn’t really transcribe conversation. What it does is turn the telephone into a writing instrument as well as one used to transmit speech. And ultimately, both computers and telephones are turning everyone into an author. Only now, instead of writing on clay or paper, we’re all writing on screen.

The latest word on fashion, Apple’s iPhone, offers “a revolutionary mobile phone, a widescreen iPod with touch controls, and a breakthrough Internet communications device with desktop-class email, web browsing, maps, and searching — into one small and lightweight handheld device.” When the phone debuted it immediately the phone to beat, and was treated as a must-have by fashion-conscious technorati. [http://www.apple.com/iphone]
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