

## **The future of a futuristic device**

James Katz

Dr James Katz is a Professor of Communication and founder of the Center for Mobile Communication Studies at Rutgers University. He was formerly the Head of the Social Science Research Unit at Bell Communications Research (Bellcore). Katz wrote and edited a series of award-winning books, among them "Perpetual Contact: Mobile Communication, Private Talk and Public Performance". His latest book, "Magic in the air: Mobile communication and the transformation of social life", will be available in early 2006. In his receiver contribution, he explains why so many users perceive the mobile phone to be a futurist tool, and tells us what users will want in their phones beyond the glittering shell.

<http://www.scils.rutgers.edu/ci/cmcs/>  
Rutgers CMCS

Why do so many people love to have the newest and most powerful personal communication technology? They peruse magazines, websites, and ads scouting for updates about what might soon be possible and make extensive efforts to acquire the newest and greatest.

My research suggests that, at least in terms of the mobile phone, these early adopters say that having the most advanced mobile phone technology makes them feel like they are living at the edge of tomorrow. The technology gives them a sense of the possible and the unprecedented. Thus in a very real sense, they not only have a feeling that they are living in the future, but - by having new powers and experiences that only recently became technologically feasible - in many senses they already are.

This "living in the future" sense has both intrinsic and extrinsic attractions. In terms of intrinsic attraction, having futuristic devices suggests that the users have more insight and power than those left behind in the past. They are in several senses visitors who are experiencing today what others can only experience later. In terms of extrinsic attraction, future-oriented users can avail themselves of distinctive pleasures and conveniences. If knowledge is power, then the users of futuristic devices appear to have the knowledge to command resources and deal with various contingencies. In essence, this bestows power: they know what other people's future will be like. Having a sought-after mobile phone makes one the envy of one's peers, which is important given the essential role of competitiveness and status ranking processes that are an integral part of life in society. The importance is particularly vital to those who are young and undergoing identity formation.

Together, these factors go far in explaining why today's "frequent buyers" and early adopters continue to want in their mobile phones futuristic styling and breakthrough features. Significantly, although futuristic users want both style and function, many will in fact choose desirable styling over desirable functions if the choice must be made. (This also appears to be the case for other important purchases, such as homes and cars.) Certainly, futuristic styling and design has been part of the mobile phone's exterior from its earliest days. After all, Motorola has said that it was inspired by the TV series *Star Trek*, and Captain Kirk's flip-top communicator when they designed the StarTAC (the world's first wearable cellular phone which was introduced in 1996). In the early days of the mobile, price had a lot to do with giving the mobile phone a luxury cachet: the great expense of ownership and use meant that only privileged elites could afford it. Having the device was guaranteed to confer prestige on its owner and it quickly became an iconic symbol of success and achievement. So it is of little surprise that ads from the mobile phone's early days featured futuristic themes, and movies of the era used it to bestow the highest imaginable wealth and status on the user, as in the 1987 film *Wall Street*.

The cachet of a high-end phone remains quite strong despite the fact that the mobile phone has become in its cheaper versions a common tool among all sectors of society. The image of the mobile phone as a futuristic luxury has remained a prominent fixture for more than two decades, and continues to be underscored when hot new styles are lavishly introduced by manufacturers. Fashion shows continue to be a favored venue for product introduction.

In addition to the style of a mobile phone itself, personality traits and value orientations are also important predictors of taste in mobile communication devices. Some research shows that personality traits are associated with varying attraction to differing styles of mobile phones. Futuristic styles are popular with those who are outgoing, reliant on the external environment for cues about internal states, or attentive to those in the immediate vicinity. People who are relatively high on the above traits also seem to be more frequent buyers of new mobile phones and advanced services.

A sense of style and an interest in futurism often overlap but do not always do so. Recognizing this, companies including Nokia have pursued aggressively a high-end design approach for some of their most expensive phones (the price may be only loosely connected to the phones' particular technological endowments). Ways to increase the excitement and desirability of a mobile phone in the eyes of the purchaser include encrusting it with jewels (real or fake, depending on budget). Some of the more successful designs in this category have a retrospective look that invokes the designs of the 1930s. So it would appear that some users want a mobile phone that does not actually look like a mobile communication device. Rather they seek a device that says they are rejecting the frenzied pursuit of the leading edge of high tech possibilities. They want something that says that they are

an elegant person who knows what is significant and what endures. Such interests may reflect a desire for authenticity or a sense of keeping faith with tradition. Also, it may well stand for a rejection of the seemingly frenzied and meaningless culture of consumption.

<http://www.vertu.com/>  
Vertu

<http://www.gizmodo.com/gadgets/cellphones/new-vertu-how-the-other-0001-call-127195.php>  
On Vertu

This rejection of ostentation is understandable, even if not entirely widespread. With about two billion users, one would be hard pressed to say that there is a great deal of uniformity among them. So for instance, an admittedly quite small number of users has begun adopting counter or even anti-uses and designs. Pirjo Rautiainen has noted that punks and rockers in Sweden enjoy having clunky, out-of-date mobile phones. In this way, users can show that they are not part of the business-mobile phone ethos. They can demonstrate as well that they are stoutly loyal to their own sub-culture.

An enormously large group in sheer statistical terms, and one that is growing as a proportion of users, is those above 50 years of age. By comparison to younger demographic categories, older users in the main do not care about style, but certainly do concern themselves with functionality and, to a lesser extent, economic cost, both real to themselves and as perceived by others. They want a phone that will be easy to use and hard to lose. As to ease of use, they need large buttons, long-lived batteries and easy-to-read displays. For them, small is definitely not beautiful. They also want a mobile phone that if misplaced will be easy to re-locate. (Note to design engineers: consider ways to help users find their mobile phones once they set them down. For instance, I may offer a tongue-in-cheek suggestion that it would be nice to have a voice-recognition phone that could bark if the phone's pet name were shouted. Many will have learned through experience the value of being able to have one's mobile phone retrieved from under a sofa pillow or from beneath a pile of papers.)

There is a paradox in serving this demographic segment, though. As a phone becomes larger, it also becomes more physically intrusive. So - like the pre-wearable era's brick phones that are antecedents of today's sleek egg-like mobile phones - it is possible that having a mobile phone once again becomes a problem of human factors' accommodation in its own right. A common solution for men is to hang a phone from one's trouser belt. Indeed, judging from casual observation, this is a solution commonly arrived at by older men. This solution enables the user to have easy access to the phone. But in true dialectical fashion, the uptake of this solution by

one group has bred antipathy to its use among those in the group's status antipode. Young males whom I have interviewed tell me that they are anxious to avoid wearing their phones in the same manner as the senior citizens. By no means do they want to appear in public with a bulky mobile phone hanging from the front of their belts. To them, doing so would suggest that they had the equivalent fashion sense of an old man, that is, a belt cinched across the sternum rather than slightly below the hips.

A further illustration of the cultural significance of mobile communication may be seen in the choices users make for their ringtones. Here sub-cultural styles and individual meaning are played out in yet another forum. Specifically, ringtones allow for personal values and orientations to be displayed for the benefit of both an anonymous public and for members of one's reference group.

From a technical viewpoint, it would seem that personalization of the ringtone is extremely easy relative to changing the internal design of the phone itself (mobile phone shells and covers are generally easy to change, of course). And many users, especially youths, commit a great deal of time and money to ringtones. These commitments are tracked by different surveys, such as of the most popular downloaded ringtones offered by Billboard Magazine. Clearly downloading ringtones is a huge business and a subject avidly pursued by many users, especially younger ones. On the other hand, despite large absolute numbers of customers, most of the user base does not choose a commercial ringtone, at least not insofar as I have been able to determine. Moreover, to the extent that users do choose a customized ringtone, they generally pick highly traditional ones. And, for those who do want a non-traditional ringtone, frequently chosen will be a tone that is retrograde, such as a 1950s style wireline phone's ringing tone, or an individualized tone such as a friend's voice ordering them to answer the phone. (A potentially illuminating topic is the individualization choices users make for their various in-coming callers.) To the extent that these locally collected observations are borne out, they illustrate the fact that constituencies of meaning do make consistent reference to sub-cultural values. At the same time, they highlight the obvious fact that not all users invoke futurism.

<http://www.billboard.com/bb/charts/airplay/ringtones.jsp>  
Billboard ringtones

In terms of anticipating what future users will want of their future phones, an important consideration is that the categories by which one orders the universe today are not necessarily good guides to understanding the way the world will be seen in the future. A brief anecdote may illustrate the principle using a perspective of a phone's operating functions: a bright 9-year old American boy I know downloads mobile phone games and ringtones at every opportunity. He is also adept with videogames and online games, joysticks and controllers. Yet the first time

he encountered a fancy 1970s "Empire" style wireline telephone, which had a rotary dial, he was baffled. He simply did not know how to use the phone because he was unfamiliar with a rotary dial and he had never seen one operated before. In effect, the digital dial pad had de-skilled an entire generation. It is easy to imagine that within a few generations knowledge of the rotary dial's operation will become nearly extinct. So one important lesson that could plausibly be extracted from this anecdote is that future users are likely to have a different sense of how communication technology should operate.

Mobile phones are morphing into objects that go far beyond the phone call or text message. They are becoming the electronic jack knife cum wallet, ID card and passport of one's existence. This re-creation of a technology makes the mobile phone conceptually quite different from the way it was originally envisioned, which was as just a telephone. (Although thirty years ago, simply a telephone that was mobile afforded a quite sufficient technical target.) And this morphing underscores the difficulty of committing too deeply to a certain configuration or embodiment.

Another cross-generational anecdote may also illustrate the point from a semantic and ontological perspective. I witnessed an 8-year old girl who was visiting her grandmother. The child watched her grandmother fetch a bulky cordless phone to make a call. As the grandmother was getting ready to dial, she paused to inform the little girl that she, the grandmother, needed first to look up the telephone number in the phonebook. Before the grandmother could get the paper object known as the phonebook, the little girl exclaimed in wonderment, "Gee Grandma, does that phone of yours have a phonebook?" The little girl thought that the cordless phone had an internal phone book, just like the mobile phones with which she was well acquainted. The little girl was surprised not by the possibility of an on-board electronic phone book. Rather it was that an old-fashioned cordless phone could have such an internal phone book (which it did not). The situation was all the more puzzling to the little girl because she actually did not know what a paper phone book was, having never seen one in use. Thus another one of the great cultural and commercial icons of twentieth century domestic life appears to be quickly departing the scene. And certainly today's young people are losing the skill of being able to use a paper version of the phone book.

Finally, the mobile phone is becoming miniature homunculi of the person. In a sense the mobile is becoming a natural part of one's physical and sociological sense of self. Physically, it is the standard access point to the larger world. But it is also becoming a portal to one's identity, self-knowledge and future. A big fear for many mobile phone users is the loss (or theft) of their mobile phone. "I would not know what to do without it" or "I'd die if I lost my mobile" are statements I've heard expressed during focus group discussions. While these statements are hyperbolic, they

are far from meaningless: in a symbolic sense, loss of a mobile is a form of annihilation. The mobile phone is becoming part of the user's brain, and its absence inflicts a form of social and psychological amnesia.

In closing, three concepts may be borne in mind when contemplating what future users will want in their phones. First, leading edge users will want their phones to have the most advanced styles as well as features. However, unless they are breakthrough technologies (such as mobile TV), functional improvements are not as critical as style considerations. Second, the traditional categories of tools - TV, phonographs, telephones and calendars - arose in an earlier era and were derived from separate technological streams. Increasingly, they are becoming jumbled within the delivery platforms as mobile communication technology advances. Hence it is important for designers not to make too many assumptions about the continuing separation of various current devices and services. Third, there is an increasing morphing between the electronic gadget and the human body. The barrier between communication technology and body, once quite distinct, is becoming less so. The trend will continue: many future users will want their communication machines to be one with their physical bodies and social selves.

This article was written exclusively for *receiver*  
contact: jimkatz@scils.rutgers.edu