

The Mobile Metamorphosis

From communication device to our most personal computer – mobile technology now connects us not just to each other, but to ourselves. But where is the evolution of the smartphone taking us?

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The cell phone is no longer just a communication device – it's our most personal computer. While its original benefit came from providing a basic channel of access to personal contacts, the addition of functionality in the form of apps and the mobile web have squeezed actual communication down to a much smaller percentage of our activity. Phones no longer merely connect us to people; as their available features grow more complex, customizable, and personal, they connect us to ourselves.

The Homegrown community was assembled from Googlers in 19 countries. They met online over a month-long period to discuss what their cell phone means to them, and what we can learn from mobile use in different cultures, both in terms of differences and unexpected similarities. The community found, for example, considerably advanced mobile commerce systems ➤

in three markets – Japan, Brazil, and Kenya – which otherwise share very little in terms of technological evolution. The unifying theme? Whether driven by the embrace of technology, population density, or necessity, it's clear that we're relying on our phones to fulfil ever more various and individual functions.

This steady metamorphosis from the mobile device as single-purpose caterpillar to multi-functional, self-reflexive butterfly dates back to the first camera phones, with the revolutionary idea that the item we used to communicate could prove a useful tool for other purposes.

But it's been the arrival of the third-party application system, and the subsequent influx of creative talent into spaces like Android Market, which have enabled more and more functionality. Today, we use our phones for everything from accessing navigation and transportation data, to finding sports results and recipes, to playing games like *Angry Birds*, and even organizing our personal finances.

With greater functionality comes an enhanced ability to make your phone your own. Where customization used to be limited to fancy wallpapers or a favorite ringtone, today there's a whole galaxy of apps and features to make your phone highly personalized. And as they grow even more customizable and complex, we'll be able to adapt them into digital self-portraits that are both personal and social.

Sherry Turkle is the director of the MIT Initiative on Technology and Self, and the author of several books on the 'subjective side' of people's relationships with technology, including *The Second Self: Computers and the Human Spirit*, first published in 1984. "When I wrote *Second Self*, I acknowledged



Quantify: People

Forty-three percent of US adults say they'd be willing to give up beer for a month if it meant they could keep accessing the internet on their smartphones. Thirty-six percent said they'd give up chocolate.⁴

the ways in which computers could be seen as an extension of ourselves,” she says. “With the cell phone, we’ve gone one step further. The way we can build and customize our phones around our interests and hobbies – whether you’re a foodie or a gamer or a social butterfly – is another way of constructing technology, so in essence it becomes a reflection of yourself.”

There’s a demand for even more customization, too, as early adopters of mobile technology become more vocal about wanting these digital devices to continue to solve problems that they already encounter in their everyday lives. “I would like to see more apps that simplify my daily life on the go: Paying bills, accessing online banking,

and 3G connectivity, switching off power-draining apps temporarily, and even managing their phone’s brightness setting. Yet somehow, they say, many are still forced to charge their battery every night.

Meanwhile, with the mobile device occupying an amorphous space that simultaneously encompasses work, family, and social life, users set their own boundaries and rules for exactly who gets contacted and through which of the phone’s many communication channels. Some of us use chat for work purposes; others for friends. Work colleagues are email only – never voice calls. Families can be texted or, very occasionally, called. “I use chat during my commute,” explained one Homegrower. “IM is great for catching up and it helps me multi-task –

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viewing credit card transactions, and so forth,” one Homegrown respondent said. And so the mobile device undergoes a second metamorphosis, this time into the *everything* device.

The desire to inject more of our everyday lives into our cell phones might go some way towards explaining why, despite several years of innovation, owners remain so preoccupied with their device’s battery life – convinced that it still isn’t good enough. It’s something that device and app manufacturers find that they must continually address. Early adopters like those in the Homegrown community often take things into their own hands, establishing elaborate systems in order to keep their phones alive. Using a variety of third-party apps, they took care to manage things like Wi-Fi

I may not be able to have six phone calls concurrently, but I can certainly have six IM conversations.”

Importantly, this fragmentation of contact channels works two ways. As new channels layer with (rather than replace) each other, it has meant that while there are more ways to contact the individual, access to these channels can be stratified and rendered more – or less – exclusive. Sharing a Twitter handle or even phone number is one thing, but access to someone’s BlackBerry Messenger PIN can mean something else.

But, as the Homegrown community shows, we want to make sense of all this. Most users would consider some of the functionality of our mobile devices – a financial planning app, for example – to be personal and private. Other aspects, like

an app for sharing photos, might be something they'd use to connect with people. Many mobile users are increasingly embracing their ability to lead select parts of their lives in public, participating in communities based on common interests wherever they happen to be. The always-on mobile user thus creates a sense of control through categorization and sorting. One can imagine that this process is stressful for those who want to use voice calls with work colleagues, text messages with friends, and photo-sharing apps with family.

Intriguingly, the Circles functionality of Google+ aims to address this exact issue, given that 'sharing' is by no means a blanket concept, and our digital networks are not simply megaphones through which to yell at everyone. By creating their own customized Circles for sharing, each individual gets to act as a traffic control tower, routing content and communication in a variety of different directions, through one interface.

The systems through which we interact with our personal networks and devices are in a constant state of change. Sherry Turkle's most recent book, *Alone Together: Why We Expect More From Technology and Less From Each Other*, addresses this squeezing of communication in favor of other technological pursuits. "Just because we've grown

up with the internet, it doesn't mean the internet is all grown up," she comments. "We assume that the way things are now will be the way things are in the future, and the same is true of cell phones. As mobile technology continues to evolve, we have to keep asking how each additional functionality serves not only as utility, but has a human purpose."

Riepl's law, hatched by media theorist Wolfgang Riepl almost a century ago, states that 'new, further developed types of media never replace the existing modes of media and their usage patterns. Instead, a convergence takes place in their field, leading to a different way and field of use for these older forms.'

While simple communication continues to hold a place in the constellation of functionalities that makes up the average smartphone, the transition from connecting device to personal computer has enormous implications for the products we develop, the interactions we solicit, and the ways in which we engage with the wider world. Smartphones are smart, but they're going to get smarter. We just have to steer them in the right direction ☺

Quantify: People

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*One in five Android owners would rather lose their wallet or purse than their phone.*⁵



This article is the product of research done within Google Homegrown, a digital community of 100 early adopters from inside Google's employee ranks around the world. Homegrown was set up by Google's Market Insights team, in conjunction with market researchers Brainjuicer and Contagious Insider, the consultancy division of Contagious magazine.