

Mobility

Time to Leave the Laptop Behind

For more mobile workers, phones increasingly give them much of what they need -- with a lot less hassle

By [NICK WINGFIELD](#)

It's time to think about leaving your laptop at home.

For years, mobile workers have been ditching their desktop computers for laptops that they can take wherever they go. Now road warriors are starting to realize that they can get even more portability -- and lots of computing punch -- from smart phones.

These souped-up cousins of ordinary cellphones, with email and other Internet functions, have become much more powerful in the past year. So powerful, in fact, that they can handle nearly every computing chore that many business travelers need to do, from checking warehouse inventory levels to watching movies on airplanes. Best of all, users can do those tasks with a pocket-size gadget that weighs a few ounces, instead of a five-pound hunk of plastic that goes into a shoulder bag.

Mobile Computing

- [JOURNAL PODCAST](#): Listen to Journal reporter Nick Wingfield discuss the pros and cons of relying more on a smart phone and less on a laptop.

The Journal Report



- See the complete [Technology](#) report.

The result: Many travelers are now using smart phones the way they once used laptops -- and laptops the way they once used desktop computers. Mobile workers rely on their laptops to create PowerPoint presentations and do other heavy-duty computing. But then they leave the laptops in their offices, homes or hotel rooms and take their smart phones out into the world -- to client meetings, say, or factory visits.

In some cases, road warriors are going even further, ditching their laptops entirely and doing all their mobile work from smart phones. And many travelers say they'd be willing to take the same step as technology improves -- which it's been doing by leaps and bounds lately.

Faster Internet connections over wireless 3G networks are getting more pervasive. Cutting-edge devices like [Apple](#) Inc.'s iPhone are sporting bigger, touch-sensing screens that make it easier to surf the Web. And mobile software is finally getting good enough for users to get their work done when they're on the go.

Carry On

Of course, laptops won't be disappearing anytime soon. Sales of the devices are brisk, and their capacious screens and keyboards will likely remain superior to those on smart phones for a long time, making them the device of choice for creating a presentation or writing an article like this one.

Even doing otherwise simple jobs on a smart phone -- such as extensive note taking -- would drive most users batty. The research and consulting firm Gartner Inc. has actually warned its corporate clients to discourage employees from relying entirely on their smart phones, largely because of the potential for errors and overlooked information when users are editing and reading word-processing documents, spreadsheets and other files on the small screens of mobile phones.

It's little surprise, then, that the number of people ditching their laptops *completely* in favor of smart phones is small. In a report published in January by research firm In-Stat based on a survey of 1,402 technology users, only 3% of smart-phone users said they rely exclusively on a smart phone when they're on the road. Indeed, 7% of respondents to the survey admitted to some remarkable pack-mule habits, saying they regularly carry two laptops with them -- one each for personal and business use.

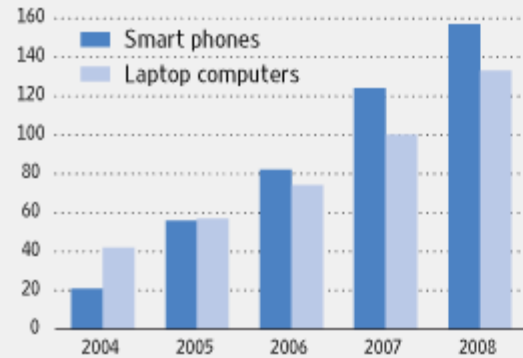
Slimming Down

Even so, roughly 52% of respondents to the In-Stat survey said they could envision using a smart phone in the future as their sole computing device, provided handset companies make improvements like better keyboards, expandable screens and applications that work as well as they do on PCs. And it's clear that a sizable number of users already are starting to see their smart phone as a replacement for their laptop for at least some of their needs. In a survey of 460 iPhone users from March by Rubicon Consulting Inc., more than 28% of respondents strongly agreed and 29% mildly agreed when asked whether the iPhone was replacing their use of laptops.

Smart and Light Catches On

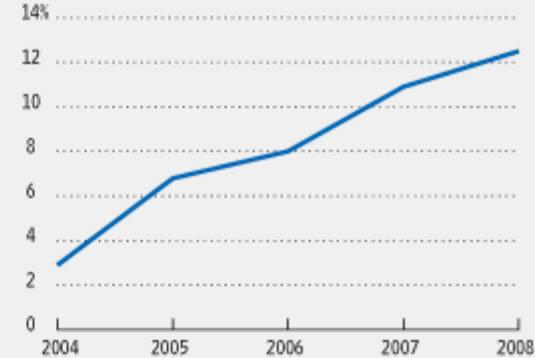
Shipments of smart phones have overtaken those of laptop computers, as souped-up handsets capture a growing share of the mobile-phone market.

■ Global shipments of smart phones and laptop computers, in millions of units



Note: Second half of 2008 is forecast

■ Smart phones as a percentage of mobile-phone shipments world-wide



Source: IDC

The credit for the change in attitude lies, in many respects, in the iPhone's combination of cutting-edge hardware and software, which is based on Apple's Mac operating system. Reviewers have praised the device's Web browser, which lets users zoom in on text with simple finger strokes. And there's a huge library of iPhone software on Apple's App Store, from games to physicians' reference guides.

Steve Ward is one mobile worker who's relying more on his iPhone these days. Mr. Ward, the president of Viewu LLC, a Seattle-based maker of portable video cameras for law enforcement and other users, has an iPhone 3G, the new version of Apple's smart phone that cruises the Internet wirelessly at broadband speeds. He also owns one of the lightest, thinnest laptops made, Apple's three-pound MacBook Air.

On his frequent business trips to Asia and Europe, Mr. Ward usually leaves the laptop behind in his hotel room. During visits with customers and manufacturing partners, he uses his iPhone to check his email, visit Web sites and tap into his company's accounting, shipping and customer-relationship-management records through an online service offered by [NetSuite](#) Inc. of San Mateo, Calif. When he's on planes, he watches episodes of "Lost" and "The Office" on the iPhone's 3.5-inch display, rarely cracking his MacBook Air anymore to watch DVDs -- a big plus in economy-class seating.

Mr. Ward dislikes bringing the MacBook Air with him on trips in part because of tedious airport-security procedures that require him to remove the laptop from his bag and place it in its own bin for scanning. He'd leave the laptop back home if he didn't sometimes need it to do business presentations.

"Everything I do all day is on the iPhone," he says, speaking on his iPhone during a business trip in London.

Other smart phones are starting to make inroads as laptop replacements, too, thanks to "software as a service." In this arrangement, companies like NetSuite and San Francisco-based Salesforce.com Inc. store sensitive business information for clients, such as inventory and accounting data, on servers accessible over the Internet using a simple smart-phone interface.

Russo Valenzuela, a district sales manager for Astra Tech Inc., a division of AstraZeneca PLC that makes health-care devices and medical implants, spends nearly all of his workweek roaming the Houston area with a smart phone made by Taiwan's HTC Corp. loaded with a Salesforce.com application. Before he heads into clients' offices, he can see a complete record of their ordering history so he knows which kinds of supplies to pitch to them.

Mr. Valenzuela brings his laptop only when he knows that he needs to do a PowerPoint presentation to clients. "If I know I don't need it, I won't take it," he says.

Pole Position

Some companies are making even bigger commitments to smart phones. About a year and a half ago, telecommunications provider Verizon Communications Inc. of New York started testing BlackBerry smart phones from Research In Motion Ltd. of Waterloo, Ontario. The devices were given to Verizon field technicians, who use online applications to manage their daily work flow and to test the condition of telephone lines.

Previously, the technicians did those same chores on laptops or, in some cases, older, proprietary hand-held devices that Verizon is phasing out. The laptops -- eight-pound Panasonic Toughbooks that are "ruggedized" to withstand shocks -- are especially awkward for the technicians, who sometimes need to shimmy up poles and work in tight-squeeze locations with the notebooks slung over their shoulders.

Bob Mudge, executive vice president and chief operating officer of Verizon Telecom, says the technicians raved about the convenience of the pocket-size, five-ounce BlackBerrys.



John Weber

"The technician feedback was like nothing I had heard in 25 years in business," Mr. Mudge says.

By the end of the year, Mr. Mudge plans to switch about 12,000 of Verizon's field technicians over to BlackBerrys. He estimates the move will replace 1,500 laptops that Verizon technicians were already using and eliminate the need to buy 5,000 to 7,000 laptops in the near future, which would have been needed as the company continues to phase out its proprietary hand-held devices.

Besides the ergonomic benefits of the smart phone, Mr. Mudge says the first-year costs of a BlackBerry, including the device itself and wireless service, are just under \$1,300, compared with about \$3,500 in first-year costs for a laptop with wireless service. Replacing a lost or damaged BlackBerry costs about \$129, compared with more than \$2,000 for the laptops Verizon was using, Mr. Mudge says.

He says the BlackBerry is more efficient, too. Laptops can require several minutes to start up and shut down, plus a minute or so longer for users to log onto a wireless network and connect securely to Verizon's corporate applications. The BlackBerrys, in contrast, are "always on" -- both powered up and able to provide almost instantaneous access to Verizon's online applications.

Verizon Communications is part owner, with [Vodafone Group](#) PLC, of Verizon Wireless, which provides cellular service to BlackBerrys. But Mr. Mudge says the decision to use

BlackBerrys was unrelated to the relationship between the two companies. Verizon Wireless also makes money selling high-speed wireless Internet service for laptops.

For many business users, smart phones offer another advantage: coverage. Users can access the Internet anywhere they can get a cellphone signal. And they can often tap into wide-area high-speed wireless Internet service.

With laptops, wide-area Internet access is typically an add-on that requires a separate antenna and service plan. A far more common wireless technology in laptops, Wi-Fi, is typically limited to local hot spots in hotel lobbies, airports and cafés.

A Better Substitute

So, what's coming next for smart phones? Silicon Valley companies are cooking up new ways of making smart phones better laptop substitutes.

Some new smart phones, including some models based on [Microsoft](#) Corp.'s Windows Mobile operating system, are starting to come with ports that let users connect the devices to digital projectors through a cable for giving presentations. "These smart phones are as powerful as laptops from a few years ago," says Scott Rockfeld, group product manager for Windows Mobile.

[Palm](#) Inc., the company that pioneered the smart-phone market with the Treo, developed a "mobile companion" product called Foleo that acted as a laptop-size keyboard and screen for mobile phones. Palm shelved the project last year to focus on other products, but has said it might release Foleo someday.

[Celio](#) Corp. of Salt Lake City, offers a \$199 mobile companion called the Redfly. The company won't provide sales totals for the Redfly but says several enterprises are deploying "multiple hundreds of units" and one business is deploying 1,200 Redflies.

At the same time, hardware makers are creating slimmer, smaller classes of computers that get ever closer to the size of smart phones. There are ultramobile PCs, or UMPCs, like [Asustek Computer](#) Inc.'s Eee PC, and even smaller mobile Internet devices, or MIDs, like [Nokia](#) Corp.'s N800 Internet Tablet, that are about the size of a small paperback book.

One heavy smart-phone user, Jim Malloy, vice president of sales for Miyachi Unitek Corp., a Japanese manufacturer of welding and other industrial equipment, believes the distinction between smart phones and laptops will get less clear, especially as the former get larger screens.

"Laptops seem to be getting smaller and smaller," says Mr. Malloy. "Smart phones are getting bigger and bigger. There's a melding or mixing happening."

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