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Handheld devices: revolution at hand

on 30 April 2000, 22:00



by [Niall McKay](#)

We are entering the age of technofashion: digital jewelry, hip gadgets, and smart-looking computers. Gone are the days of the purely functional -- tomorrow's computing devices will be designed for people, not corporate soldiers. Marketing departments are calling it an out-and-out paradigm shift. Personal computing, they tell us, is becoming more personal.

A revolution in wireless communications is driving this movement -- a revolution that has so far meant email and Web access from pocket-size computers and cell phones. But this is just the beginning.

This is one trend that didn't start in Southern California. A single wireless-network infrastructure, GSM, and cooperation among telecommunications carriers have enabled Europe to race ahead of the United States. [Forrester Research](#), an IT consultancy, predicts that up to 219 million people, or one-third of the total population of Europe, will use mobile phones to access the Internet by 2004. Furthermore, Europeans pass more than 2 billion short message service (SMS) or pager messages across cell phone networks each month. By contrast, [International Data Corporation](#), a market research firm, estimates that only 62 million people in the United States will use wireless devices to access the Internet by 2003.

However, to know what will really happen in the next five years, ask the geeks designing tomorrow's microprocessors. At Silicon Systems, a chip-designing company in Ireland, engineers are working on a telephone headset for the Swedish electronics manufacturer and developer [Ericsson](#). The headset has the same size and shape as a hearing aid. Pop it into your ear, tell it to call Mama, and it will retrieve her number from the cell phone, personal digital assistant, or handheld computer in your pocket.

Also, by the end of 2001, a home-networking technology called [Bluetooth](#) is slated for release (see [Explained](#)), along with global positioning satellite wizardry for cell phones (see ["Globe Plodding"](#)), and supercheap MP3 chipsets.

PICKING TEETH

Many believe Bluetooth, named after a tenth-century Danish king with bad teeth, will become the standard for enabling the easy transfer of data from one device to another. Those with little imagination talk about how this will revolutionize data synchronization and allow friends and business associates to exchange contact details. But the cross-device data transfer isn't much different from local area networks that enable file and print sharing, says Michael Mace, chief competitive officer at [Palm](#). Nobody really imagined that applications like group scheduling, email, and games would become so pervasive. And Mr. Mace believes many applications for Bluetooth haven't yet emerged. With data transfer rates ranging between 1.2 Mbps and 11 Mbps over distances of up to 10 meters, almost anything is possible. Combine Bluetooth with [MP3](#), for example, and your audio can follow you from your living room to your car to your office. Simply choose the nearest set of speakers, push the button, and listen. (For more on portable entertainment devices, see ["Pocket Projector"](#).)

By 2003, everything from Palm devices to cell phones will include MP3 technology. In fact, the Korean electronics manufacturer Samsung Electronics will release an MP3-enabled phone later this year. And the soon-to-be released Windows CE Pocket PCs from [Compaq Computer](#), [Casio](#), and [Hewlett-Packard](#) will include MP3, as well as [Microsoft's](#) proprietary Windows Media Format, says Brian Shafer, Microsoft's mobile-device marketing manager.

Philip Monego, CEO and chairman of [Voquette](#), an MP3 aggregator, says that playing Van Morrison on the road is hardly going to revolutionize the audio world. However, text-to-speech technology that can read email and stock quotes and has the ability to retrieve any radio program broadcast at any time in any location will make "follow-me" audio more compelling.

FASHION TRAITS

Digital jewelry. That's the answer. Just as computers aren't merely business tools, but lifestyle choices -- as [Sony](#) and [Apple Computer](#) demonstrated last year with the release of the Sony VAIO and the Power Mac G3 -- companies are recognizing that mobile phones aren't just phones, but fashion statements. Now the mobile phone makers [Nokia](#) and Ericsson are trying to persuade technojunkies to carry a serious cell phone with an integrated personal digital assistant during the day and a cute little stylish phone that slips into a shirt pocket at night. Nokia is going to the fashion houses to design its new cell phones. "It's Swatch all over again," says [IBM](#) research scientist Cameron Miner.

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