



Wi-Fi changes virtually everything

By Michelle Kessler, USA TODAY

Wi-Fi sends Web pages and other information through the air via radio waves.

- Wi-Fi antenna. Found in most electronics stores for \$50 to \$150. Often called an "access point."
- Broadband Internet connection. The most common types are a digital subscriber line (DSL) or cable modem.
- Laptop equipped for Wi-Fi. Most new ones are. Wi-Fi attachments are available for most older laptops for about \$80.

Wi-Fi is catching on fast — and changing the way people use the Internet. Fans say it leads them to do more things online: They pay bills from the living room, search recipes from the kitchen and check e-mail on the go. Tech analysts say that's just the beginning of what Wi-Fi can do. In the future, it will connect all kinds of devices — lamps, stereos, computers — and, for the first time, truly integrate the Internet into daily life.

"It's going to connect all kinds of things that need to be connected together," says Matt Peterson, co-founder of a San

Francisco-area Wi-Fi users group. "It could really make your life easier."

Wi-Fi has been in the mainstream only about four years, but it's already causing a rise in laptop computer sales. Laptops made up 22% of PCs sold in the USA in late 2002. By the end of 2003, they made up 30%, says researcher Gartner.

Now, Wi-Fi is starting to appear in consumer electronics. Gateway (GTW), Microsoft (MSFT), Samsung and others are building TVs, DVD players, stereos and other gadgets that can talk to one another — and to nearby PCs. That makes it possible to download a movie or song from the Internet and send it wirelessly to your home entertainment system.

That's just the beginning. Researchers are working on a tiny version of Wi-Fi that can be used to send very simple commands to household appliances. You could use it, say, if you wanted to turn on your lights remotely, via the Internet. Or adjust your thermostat. Or check whether you left the iron on. There are thousands of possibilities, Peterson says.

That means big opportunities for enterprising companies, says Nielsen/NetRatings analyst Charles Buchwalter. Six million people buy something online each day, and millions more use the Web for research and reservations, according to the Pew Research Center's Internet & American Life Project. As Wi-Fi makes the Web more convenient, those

numbers will rise, he says. Companies that sell online goods and services — and adapt quickly to Wi-Fi — could have a huge, new customer base, he says.

Wi-Fi will prompt companies "to take the Internet much more seriously," Buchwalter says. "It's revolutionary."

From couch to kitchen

Wi-Fi is taking off fast. More than 64 million Wi-Fi systems are expected to be sold this year, up from 24 million in 2002, says researcher IDC.

Already, Internet companies such as ESPN.com are tailoring features to customers with Wi-Fi. In September, ESPN.com launched a host of features. Among them: live chats with sports experts, more video clips of big plays and tools to help fantasy football fans track their teams.

It's a big change from ESPN.com's initial design, based on targeted users who watched the game in the living room and dashed to an office PC to check scores or stats. ESPN launched the redesign after focus groups said they were using Wi-Fi to take the site into the living room.

The new interactive features "give a little bit of a sports bar feel, even though you're sitting alone on your sofa watching the game," says General Manager John Kosner. ESPN.com is considering additional interactive features, such as instant messaging during games, he says.

Cooking Web site Allrecipes.com underwent a similar overhaul. The site's original users were people who browsed recipes at a desk and printed them to take to the kitchen. Now, anecdotal evidence suggests, users are sorting recipes in the kitchen on a laptop with Wi-Fi, says marketing director Esmee Williams.

In November, Allrecipes redesigned its site, in part to make it easier for Wi-Fi users. They've simplified navigation and made it easier to view a whole recipe on one screen, without a flood of ads.

Epicurious, another cooking site, boosted its offerings of how-to videos that users can watch while cooking. It also enhanced its online "recipe box" feature, which stores favorites for users, and is continually adding recipes to the site.

Entertainment portal Yahoo TV (YHOO) caters to Wi-Fi users, too. Customers are starting to use a Wi-Fi-equipped laptop while watching TV for interactive viewing, says Director Doug Hirsch. When a big show is on, traffic on the Yahoo site jumps, he says.

To capitalize on the trend, Yahoo TV recently signed a partnership with Television Without Pity, a TV gossip site that features real-time chats about shows as they air. "This is convergence. You're talking about your show while you're watching," Hirsch says.

And customers keep coming up with ways to use Wi-Fi. Rajesh Vasireddy, a graduate student at the University of Illinois at Urbana-Champaign, hates using his remote to navigate program listings that come with cable TV. So he uses a Wi-Fi laptop to breeze through the listings online. Anna-Marie Claassen, who works for a Wi-Fi company, likes to do crossword puzzles online from her couch. Tim Pozar, another co-founder of the San Francisco Wi-Fi group, uses it to check his e-mail from a personal digital assistant while following his 4-year-old son around the house. "It's handy," he says.

Wi-Fi in the warehouse

Wi-Fi is also transforming the way businesses use the Internet. The technology first was used by business travelers, who needed an easy way to go online while on the road. Some businesses use Wi-Fi to replace costly wires or provide connectivity in hard-to-reach places, such as warehouses. By making it easier for employees to work wherever, whenever, Wi-Fi often boosts productivity and provides a return on investment of 200% or more, says Bill Clark, a wireless analyst with researcher Gartner.

Myrtis Smith, who runs a career-coaching service from her Cincinnati home, worried that a new baby would make working tough. She installed a Wi-Fi network just before her son was born. Now, Smith, 30, can check e-mail while watching her 8-month-old son play. "I'm free from my desk," she says.

Unique ways to use Wi-Fi are expected to flourish as it gets cheaper and easier to use. Two years ago, a home Wi-Fi antenna, sometimes called an access point, cost \$300. Now it's less than \$100, says IDC technology analyst Abner Germanow.