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Home Networking

'Smart' Kitchens A Long Way Off

Matthew Herper, Forbes.com, 12.21.01, 12:00 PM ET

Researchers have thought up lots of nifty ideas about how to use microprocessors and Internet connections in everyday household appliances. But that niftiness hasn't made it into our kitchens or laundry rooms--they've barely made it out of the home office. Our toasters don't talk, our refrigerators don't think, alarm clocks blare just as they always did and the oven mitt is just an unfeeling piece of cloth.

The Smart Washing Machine

Mr. Coffee's Brain Goes Dead

If You Build It, People Will Buy Appliances

Thinking Oven Mitts And A Fridge That Tells You What To Cook

It's not for lack of trying. Big companies like General Electric (nyse: GE - news - people), Whirlpool (nyse: WHL - news - people), Maytag, Microsoft (nasdaq: MSFT - news - people) and Sun Microsystems (nasdaq: SUNW - news - people) have all, in one way or another, gotten into the smart-appliance game. For the most part, the results are nonexistent. Here we look at some great ideas and assess why most aren't household names.

The Smart Washing Machine

Right now, at least one firm is selling big-ticket, Web-enabled appliances: **Merloni Elettrodomestici of Fabriano**, Europe's third-largest appliance maker. Last year the Italian firm sold more than 1 million networked appliances--most of them washing machines. Merloni's Margherita 2000 washing machine sells for $450 and looks no different from standard washing machines except that it is more gentle on delicate clothes and can be controlled through the Internet.

Ted Selker, a professor at the Massachusetts Institute of Technology's Media Lab who thinks about smart appliances for a living, believes he has the only Margherita 2000 unit in the U.S.--and he uses it for research. The washing machine uses a capacitor to measure whether water and detergent have soaked into clothing. The machine can then perfectly time its washing cycles, wasting less water and not damaging delicate clothing.

"I don't care so much that they connect it to the web," Selker says--the "smart" thing about the machine, to him, is that it 'knows' not to damage clothing. At home, he has a plain-old, manually set washer.

Mr. Coffee's Brain Goes Dead

Last year, **Sunbeam**, maker of the Mr. Coffee coffee machine, created a subsidiary that was supposed to focus on Web-enabled countertop appliances. The subsidiary, dubbed **Thalia Products**, announced an alliance with Sun Microsystems last June. The plan was to introduce an alarm clock, smoke detector, kitchen console, coffeemaker, electric blanket and other products in early 2001.

The date came and went, with no products in sight. In the press release touting the alliance, Sun Vice President **Mike Clary** boasted about the "tangible benefits" Thalia would give consumers by "simplifying, automating and coordinating household activities." But Sun and Sunbeam don't seem to have brought light into anyone's life with Web-ready coffee makers.

Sunbeam did not address a fundamental problem with making inexpensive smart appliances like coffee makers: Even the most innovative blenders and toasters quickly become commodities. Nowadays, there is no reference to the Thalia project on Sunbeam's Web site, and Sunbeam--which filed for bankruptcy protection on Feb. 6--didn't return calls seeking comment. Thalia's Web site doesn't work.

If You Build It, People Will Buy Appliances

Certainly, this doesn't mean there isn't any future for the networked kitchen. **GE Smart**, the product of a joint venture between General Electric and Microsoft, is working to build houses in which everything can be networked--including the kitchen.

The problem, says **Michael Isaacs**, executive vice president of marketing at GE Smart, is that the whole idea of a smart appliance is still rather vague. "Does smart mean communications," he asks, "or does smart mean safety and energy savings?"

Isaacs says it makes sense for appliances to be wired so that utility companies can scale energy consumption more easily. And perhaps people would want their ovens, refrigerators and dishwashers to talk to one another. Even then, however, it won't work if there's no networking infrastructure already built into the home.

For that reason, GE Smart is focusing on building homes that are heavily networked throughout--and is pushing its technologies to builders of homes that sell in the $300,000 range.

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In the meantime, though, "smart" appliances may remain the domain of future thinkers like MIT's Selker, who is funded by 180 companies that want to know what kinds of products they should be making in the future. And, certainly, his lab continues to hatch cool gadgets. Among them:

- An oven mitt that can tell whether food is still cold, is hot but not cooked or has cooked all the way through--and will tell the wearer either to put the casserole back in the oven, to serve the meal already or to pull out the fire extinguisher.
- A refrigerator named Minerva that can tell what's sitting on the shelf with 80% accuracy. If you have a few tomatoes, an onion and some pasta, Minerva might suggest that you make spaghetti for dinner.

But although such gadgets are cool, will anyone really buy them? Companies should tread lightly. GE and Whirlpool have been talking about "smart" computers since the mid-1980s. In the decade and a half since, the path to the kitchen of the future has become cluttered with train wrecks.

There may be plenty of ways that companies like Merloni can give their products an edge by making them smarter--but consumers will ignore them if they are more expensive than, say, a garden-variety washing machine.

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