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Business

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MARKET REPORT

		CLOSE	CHANGE	
Nasdaq	▲	2,572.06	+14.87	+0.6%
Dow Jones	▲	13,521.34	+14.06	+0.1%
S&P 500	▲	1,518.11	+2.38	+0.2%
MN 150	▲	2,097.99	+9.75	+0.5%
Bonds*	▲	4.89%	+0.03	—
Dollar	▼	121.55	-0.13	-0.1%

*10-year Treasury

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**JUSTICES LIMIT
PAY-BIAS SUITS**

STOCK MARKET REPORT | PAGE 3C

INVESTORS BOOST NASDAQ



Possibilities at your fingertips



Dean Takahashi
TECH TALK

Microsoft tabletop computer breaks creative ground

When Bill Gates talked about a new kind of computer in a speech a couple of years ago, I thought it was pure fantasy. Before a Las Vegas crowd, he showed a smart tabletop that operated like a personal computer but was as intuitive as using a chalkboard.

But today, Microsoft is unveiling Gates' tabletop computer at the D: All Things Digital conference near San Diego. You can control the PC, dubbed Microsoft Surface, by sweeping your hands across the touch-screen surface of the table; use your fingers to paint images on the table; even "make" waves in a picture of water projected onto it.

This is the most creative new use for a computer that I've seen in a long time. Michael Gartenberg, an analyst at JupiterKagan, says it's "like something off the bridge of the Starship Enterprise" that could signal the future of personal computing.

Microsoft calls it "surface computing." The technologies inside it are fairly mundane, but it has taken the company more than five years to develop the applications

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'Smart pen' helps get notes organized

I know, I know, I haven't been excited about a new computing platform since, well, the report on this page about Microsoft's new machine. But it's a good week for brand new ways to use computers.

This one is Livescribe, a "smart pen" with a computer in it that can record up to 100 hours of boring lectures and tie the recording to digitized versions of your handwritten notes. You can upload the notes you've taken with the pen to a laptop computer and then search for key words. When you click on words, you can play the recording of the words at the precise time you wrote the words.

Old as I am, I can relate to this as someone who never learned to take neat, organized notes.

Jim Marggraff, CEO of Oakland-based start-up Livescribe, says the new product — being introduced today at the D: All Things Digital conference near San Diego — will connect pen and paper with the digital world. He's got experience with this kind of thing.

He created the Odyssey Atlasphere, a globe

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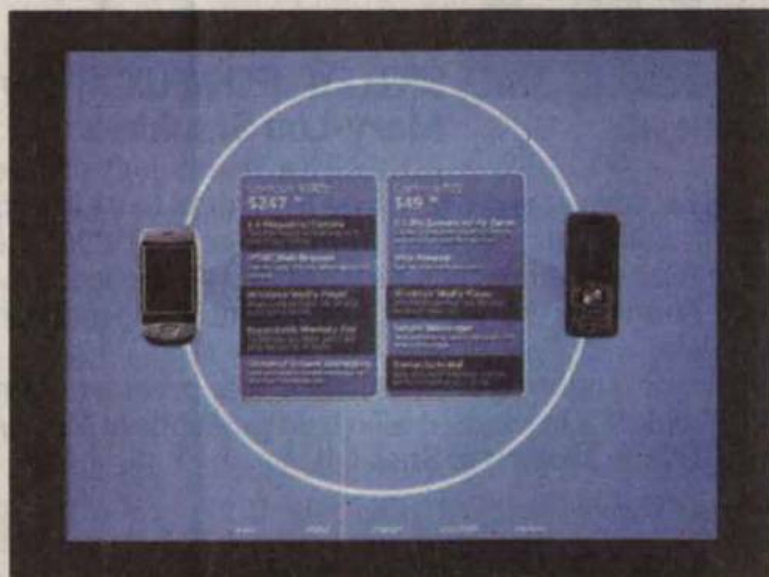
DINING: Restaurants could use the surface computer to let customers order food and drinks.



MUSIC: Software would let customers use the computer to buy songs for their digital players.



MAPS: An example of how Microsoft's surface computer could be used to provide directions.



RETAIL: The surface computer could be used by shoppers to compare and buy products online.

PEN | 'Smart' device helps take notes, organize them

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that talks to you when you point at a particular spot on it with a special pen. Marggraff pioneered the creation of the Leap-Pad toys for children, the Leap-Pad with a microphone, and the Fly PenTop computer for kids, also made for children.

He licensed the technology used in the Fly product from Anoto Group in Sweden. He spun Livescribe as a start-up out of Emeryville-based Leap-Frog in January 2007, and is now doing a pen computer for big people.

A self-described serial entrepreneur, Marggraff has put together a team of veterans from Palm, Stratus Computer and LeapFrog.

"Our goal is to create the next big mobile computer," he said. "Our tools typically direct our thinking. We wanted our thinking to direct the tool. This makes your notes intelligent."

The pen has a speaker, two microphones, a tiny display, a processor and memory, a rechargeable battery, a headphone jack, and a universal serial bus (USB) connector to dock it to a laptop. It uses a special but cheap kind of paper that is littered with microscopic dots. When you press the pen to the dots, it knows exactly where you placed the pen tip. As you write, the computer builds a memory of where you are writing on the page and feeds that data back into the laptop when you dock it.

The combination of the smart pen and the dot paper leads to useful things. For instance, the image of a calculator can be embedded on the paper. Then you can actually use that calculator to solve problems. If you use the pen to press the symbols for five times seven and then the equal sign, the pen will display the answer: 35.

You can also write a word and have the pen translate it into another language. And if you write the word "solve" and then scribble a math problem, the pen's display will spit out the answer. If you write "define" and then a word, it will give you the definition. With the word "convert," you can change something from English to metric numbers.

You can even sit on the beach, write a post card, and then record sounds and words that your friends can listen to as they read the post card. Livescribe will allow third parties to create other kinds of applications as well.

As I said, the coolest part is

You can upload the notes you've taken with the pen to a laptop computer and then search for key words.

how it synchronizes recorded audio with the ink. If you're in a lecture, you can write the words on the paper with the dots as you record the professor's voice. You connect the pen to a computer and transfer the written words into an electronic document with your own handwriting. You can print the document. Or you can type a word and the program will find the handwritten word throughout

the document, making your notes searchable.

If you print a business card with the microscopic dots, you can scribble a note on the back of it. Once you dock the pen, it will automatically send the message in the form of an e-mail to the person whose name is on the business card. There is a lot more you can do with this card, but the details didn't soak in as I sat dumbfounded at how cool this is.

There is enough storage to keep about 60 pages of handwriting before you have to upload it to a computer, and the battery lasts for about a week. It's going to debut as a product in the fall for about \$200. Competitors do exist, such as an electronic pen from Logitech. But there isn't anything with this level of sophistication to it. Marggraff, who sold Stratus to Cisco for \$4.5 billion, may have another winner on his hands.

For someone like me, the big problem here will be the little things. If you run out of ink, you can replace the pen tip with a new one with fresh ink. And if you lose it, you lose a very expensive computer. But Marggraff expects to offer pen insurance for those of us who aren't so careful with their writing instruments.

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