

THE NEW GENERATION OF HAND-HELD COMPUTERS

PDAs still haven't connected with consumers

By James Kim
USA TODAY

They're back. They're better. But will hand-held pen computers soon be found in every briefcase or purse? Don't bet on it.

A new crop of these devices — broadly known as personal digital assistants — is beginning to hit the market. They will likely sell better than their much-maligned predecessors.

Today, Motorola will announce Envoy, which will go on sale this summer. The Simon, from IBM and BellSouth, will be available in limited supply later this month. Sony is reportedly going to announce its entry within months.

And if you thought Apple Computer's heavily criticized Newton was dead after a troubled launch last summer, guess again. Apple started selling a new Newton — the MessagePad 110 — Friday.

"We really listened to our customers," says Gaston Bas-tiaens, an Apple vice president. This time around, you'll be hearing less hype about how these devices will magically organize your hectic day and revolutionize mobile computing by reading your handwriting and running sophisticated software programs.

The Envoy "isn't going to be an instant hit. (Sales) are going to be slow," concedes Pat Richardson, vice president of Motorola. Dan Norman, director of strategic planning for BellSouth Cellular, says he'll be happy if he can sell 50,000 Simons the first year. The first Newton sold that many in a few months and was considered a flop.

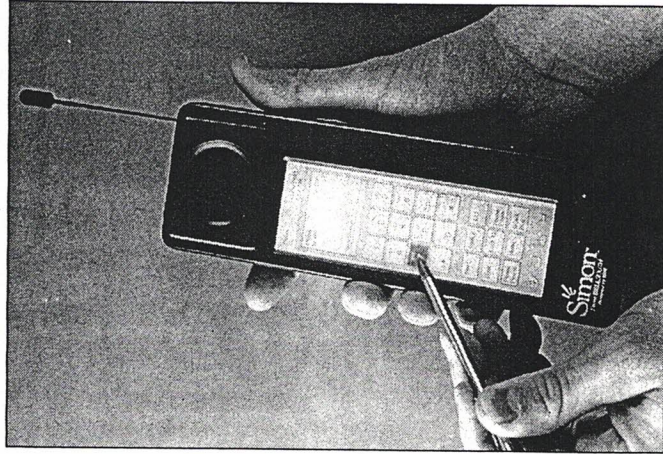
The new PDAs are improved in key areas:

► **Communications.** The first generation's communication ability was weak — a fatal flaw. Consumer surveys show "communications has to be the core," says Ira Brodsky, president of Datacomm Research of Wilmette, Ill.

The Simon contains a cellular phone, so you can talk to others. It also lets you send and receive faxes, computer data and electronic mail.

Neither Envoy nor Newton allows voice communication.

SIMON



ADDING ITS VOICE: The Simon, designed by IBM and sold by BellSouth, will be available late this month in areas served by BellSouth. It goes on sale nationwide next month. It features a cellular phone. Price: \$899.

But the Envoy offers a built-in modem to send and receive computer data. "Its communication features are elegantly done," says Santa Clara, Calif., consultant Andy Seybold, who rates Envoy above Newton.

Newton allows you to insert a card, slightly bigger than a credit card, that turns the device into a pager. Another card contains a modem that allows you to send but not receive faxes. Apple plans to sell another card this year that will improve Newton's ability to send and receive messages.

► **Reduced emphasis on writing, recognition.** Experts agree that handwriting recognition — a feature that translates what you print or write on

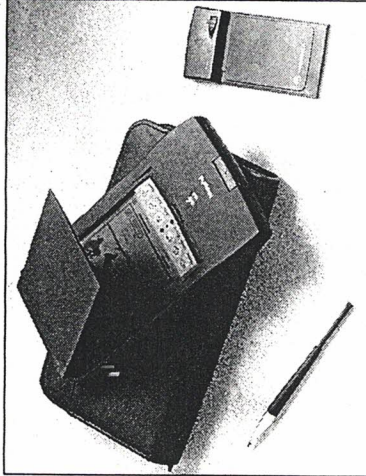
the screen into typewritten words and numbers — is not a critical consumer need. Neither Envoy nor Simon can translate handwriting, though both can store or fax what you print or scribble on the screen.

Apple has taken steps to improve Newton's handwriting recognition — the bane of the first generation.

► **Other applications.** The Envoy — based on software developed by General Magic — will allow you to use an AT&T wireless network called PersonalLink, expected to be running this summer. The service will let you order clothes or airline tickets — even messages you when the item you want drops to the right price.

NEWTON

NEWTON REDUX: Apple's Newton MessagePad 110 should be in stores soon. Price: \$599. The new Newton features better communication ability, and reduced reliance on handwriting recognition than its predecessor, which flopped last year. In April, Apple also will start reselling the original Newton — some may want it for nostalgic value — for \$499.



Critics pointed in questioning stylus approach

Most PDAs come with a stylus or pen used to enter information in several ways.

► You can write or print directly on the screen. Most PDAs save that as is. Newton tries to translate what you write or print into typewritten letters or numbers.

► To call up, say, an address book, the user touches the tip of the pen to a screen icon — a tiny picture.

Using a stylus can be tedious.

► To enter words, call up an electronic keyboard, which appears on the screen. Then, you tap-and-peck with the stylus — one letter at a time.

► To enter a phone number, call up a numbers keyboard, and repeat the process.

Andy Seybold, editor of Outlook on Mobile Computing, says the pen-based approach may not last. Consumer surveys show that techno-literate people vastly prefer using a keyboard and won't easily give it up.

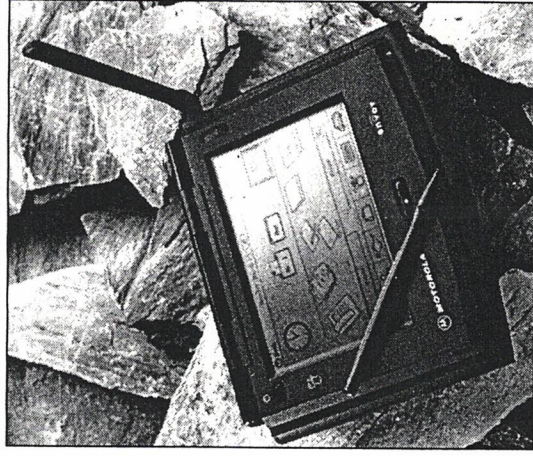
That's one reason why Howard Anderson, managing director at the Yankee Group, thinks PDAs as they exist will never take off in the consumer market. Rumor has it that the next generation of Apple's Newton will rely on a keyboard.

Anderson says portable computers, which are fast shrinking to PDA-size and have easy-to-use keyboards, will eclipse PDAs.

The next generation of "subnotebook" PCs "will be the next generation of PDAs," he says.

— James Kim

ENVOY



NEW ENTRY: Motorola's Envoy will go on sale this summer. It features two-way communications ability and a software system made by General Magic. Price: \$1,500.

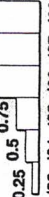
illnesses. Apple has also developed a system to help home buyers locate houses within a given price range — and alert the Newton's pager with a beep or flashing light when proper

ties hit the market. Still, experts don't expect the devices to become must-have items for at least five years. That's one reason Compaq Computer has backed away from plans to launch a PDA.

"We want a product we can sell a bunch of," says Compaq's Bob Stearns, a vice president. "Right now, we don't know what that is."

PDAs in demand

Demand for personal digital assistants, in millions of units:



Note: 1994-98 are estimates
Source: The Yankee Group

By Mary Baumann, USA TODAY

Apple says 32 computer programs, including games and business applications, will be available for Newton this month, and up to 100 more programs are being written by software developers.

Apple is working with large corporations, which plan to distribute Newtons for specific tasks. For example, chemical company Monsanto has given Newtons to about 200 farmers. The farmers enter information about their crops and transmit it to Monsanto, which uses it to develop agricultural chemical products.

The Department of Defense will give Newtons to military doctors to record information concerning drug allergies and