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# Why Did Apple Kill Newton?



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Early Friday morning, February 27, 1998, Apple Computer made official what the Newton cognoscenti had strongly suspected for six months: the Newton handheld computing platform was dead.

The rather terse press release gave the basic facts: Apple will cease all Newton OS hardware and software development, no more products will be made after the existing stock is depleted, and Apple will continue to provide support to users. Brief mention was made of development of a new low-cost Mac OS-based mobile device in the future, but no details were offered. But the most galling omission was the lack of an answer to the question on the minds of hundreds of thousands of shocked, angry Newton owners: Why?

Before I attempt to answer this question, let's take a quick tour of the mercurial five-year career of Newton. This will serve to prepare you for the several explanations we will be considering.

## **A brief history of Newton**

During its turbulent five-year life, Newton technology was close to death several times, yet always managed to survive. Department heads came and went, but the essential concept of the personal digital assistant (PDA) was too compelling to die easily: A small, inexpensive, pen-based computing device that would accompany you everywhere, and that would learn enough about you to make informed assumptions about how to help you keep track of the myriad little bits of information we all must carry. It would be simple enough for anyone to use, a true computer for the rest of us.

I was fortunate to participate in the Newton beta test program and to co-author and deliver the training materials used to launch the product. The moment I saw that beta unit my life changed, and I wasn't the only one.

"I still remember the excitement of holding a pre-release Newton NotePad (as it was labeled then) in my hands for the first time," said Clinton Logan, ace developer for LandWare. "Truly unique products like that don't come along very often."

For those of us who bought into this vision, it seemed like the future was arriving ahead of schedule. Like the buyers of the original 128K Macintosh, we gladly paid the high price of admission just to participate in this achingly cool dream that had taken physical form. We loved it and made it work for us in ways unanticipated by its creators, which is the true measure of great computer design.

### **What is Newton?**

Newton had an identity crisis from the very beginning. Former Apple CEO and Newton champion John Sculley first showed the prototype to the press in Chicago on May 1992, where he described not only the device but also their platform strategy. A central theme in Apple's advertising and promotional materials at the time repeatedly used the phrase "What is Newton?" Some have suggested that Apple never actually answered this question to anyone's satisfaction.

Consider the name change. The product was originally called the Newton NotePad to suggest its personal assistive features, but that was later changed to MessagePad to emphasize the product's communications capabilities.

"We had always intended for Newton to be a platform, not just a product," said former Newton Systems Group chief Gaston Bastiens, now CEO of Lernout & Hauspie, an eminent speech recognition company. "Unfortunately, all the press took away with them was the handwriting recognition aspect, which was over-emphasized. The whole thrust of Newton was to be a personal communicator as well as a personal assistant. From a conceptual point of view, John was absolutely right. The infrastructure for two-way wireless at the time was not there; we all knew it was a couple of years away, but it was always part of our platform strategy."

John Sculley generally gets both the credit and the blame for the original Newton concept, but others who worked on the project say that Sculley simply understood and adopted the vision the designers had already created. However, these same people will admit that Sculley did foresee the current convergence of computers, communications, and content.

"I have never seen a story more misrepresented by the media than what was really intended as the vision for a totally licensable platform for mobile wireless devices in the age of digital convergence," Sculley told me recently. "They had an opportunity to create a major new industry, but nothing ever happened. Newton was intended to be a platform for wireless communications and handwriting was a very, very small part of the product."

### **The original MessagePad**

Launched at Macworld Boston in August 1993, the first 5,000 MessagePads sold out within hours. Users went nuts over them, gladly paying the US\$800. Apple ran training sessions at the show and handed out buttons that said "I saw it, I did it, I want it." Newton stole the show. The MessagePad was marvelously solid and well-built--no surprise, since

Sharp built them for Apple in Japan. (Sharp also released a superb Newton-based device called the ExpertPad, but very few of them were actually sold in the US.)

As wonderfully innovative as the original MessagePad was, it was far from perfect. Many felt that it was a beta product, not ready for prime time, and that it was released ahead of schedule because Sculley was determined to ship before he was ousted from the company. That rumor is untrue, according to Bastiens: "There is no truth to that at all. John was in complete control at the time. I actually delayed the MessagePad's release from January '93 to August '93."

The most pernicious flaw in the MessagePad was a nasty memory fragmentation bug that severely hindered the functioning of the early version of ParaGraph's handwriting recognition engine, which was in the ROM of the MessagePad. Unless the user was very careful to reset the unit regularly, recognition would suffer.

"In retrospect," said Pen Computing's editor-in-chief Conrad Blickenstorfer, "Apple's decision to include a dictionary-based recognizer with access to only 10,000 words was a recipe for disappointment. If they had allowed character-based recognition to work alongside the word-based model, things would have been much different."

The Note Pad application, where users spent most of their time, was notorious for hogging all available system memory. This would cause problems such as forcing the user to reset the unit, though doing this would not lose any data. The Intelligent Assistant feature could be pretty dumb at times, making some odd assumptions in response to user commands. The Names and Dates applications were Spartan even by 1993 standards, lacking essential fields and varieties of appointments that every user needed. Physically, the original MessagePad was too wide for people with small hands to hold comfortably, and the unit was just a little too big to fit into any but the largest pocket. Unless you were a kangaroo, you carried your MessagePad in a briefcase or handbag. It wasn't really all that handy. The four AAA batteries proved insufficient for the MessagePad and the unit also lacked a cover for the glass display, so broken screens were quite common in those early days.

But none of this really mattered. We loved our Newtons with all their flaws, because there was nothing else out there even remotely comparable. Newton was unique.

Newton had the most advanced operating system of any personal computing device. Oriented around the task, not the application, Newton users could work easily and naturally. The friendly, responsive user interface shielded you completely from its sophisticated inner workings. It was built around a persistent object database that simplified file management more than any OS ever had. Though no one ever tried it commercially, the Newton OS was CPU-independent, so programs would theoretically not have to be recompiled for devices using different microprocessors. Developers sang the praises of the Apple-developed Newton Tool Kit, with its richly powerful NewtonScript language, though many grumbled about the steep price Apple charged for it.

### **The MessagePad 100 and 110**

In the aftermath of Doonesbury cartoonist Gary Trudeau's merciless week of lampooning the MessagePad's handwriting recognition, Apple steadfastly continued to improve the Newton line. (Trudeau later recanted his criticism and became a big fan when Apple sent him a MessagePad 2000.) In February of 1994, a new machine arrived with a completely re-designed case, a much more stable version of the operating system, and an expanded word list for the handwriting recognizer. The MessagePad 110, manufactured for Apple by Inventec, had an integrated screen cover, a larger display, more memory, and used long-lasting AA batteries instead of the wimpy AAA cells of its predecessor. Many felt that this was the machine Apple should have shipped first, and I believe it could have happened that way. I personally saw a fully operational MP110 in use by an Apple handwriting recognition engineer prior to the official launch of the original MessagePad, so the 110 was obviously in an advanced stage of development.

Apple continued to sell the original MessagePad with the new ROM of the 110 and called it the MP100. Existing MessagePad users could send in their units to be upgraded with the new ROMS.

Commercial applications, which had been sparse, began to arrive in quantity, joining the many shareware and freeware apps we were already enjoying. Based on the wealth of new developers, Newton's future seemed assured.

### **The fabled Newton LC**

One of the most heartbreaking mistakes Apple made was not building a small shirt pocket-size device that would sell for under US\$400. This form factor, combined with low pricing, has proven to be wildly successful for 3Com/Palm Computing and their best-selling PalmPilot platform. Original Newton Group leader Steve Capps told me some of his team originally wanted to build a Pilot-size Newton but the technology to do so wasn't there in 1991. He feels that Newton would have benefitted from getting smaller instead of larger, as it ultimately did with the MP2000/2100 and eMate 300 machines.

"We should have believed in our own thinking," Capps observed. "Palm didn't make the same mistakes and they deserve their success." John Sculley also confirmed that "such products were always in the plan." (Several years later, Apple repeated the mistake when a palm-size US\$450 StrongARM-based Newton was killed in favor of the eMate.)

I recently stumbled on an interesting piece of supporting evidence. While rummaging through some Newton accessories at a used Apple store, I found an Apple-branded leather case in which the sewn-in identity strip read "MessagePad 110 / LC."

"There absolutely were plans for an LC product to be released in 1995," said Bastiens. "We had a complete design, developed with LSI Logic and ARM, for a 'one-chip-Newton.' It was a miniaturized MessagePad, like a PalmPilot."

The Newton LC would have changed everything. "We were too nice to Apple," said Blickenstorfer, "too willing to put up with their veil of secrecy, too willing to take 'no comment' for an answer. Perhaps we could have convinced them the LC was definitely the way to go. Apple could have shown us the LC a year before Palm asked us what we thought of the Pilot prototype."

### **Newton 2.0 and the MessagePad 120/130**

At roughly one-year intervals, Apple released evolutionary improvements to the Newton line. The MessagePad 120 had a much better display and twice the memory of the 110. In late 1995, Apple shipped an improved MP120 with a powerful new version of the operating system. Newton OS 2.0, introduced at a huge party at the 1995 Fall Comdex show in Las Vegas, was a tremendous leap forward in functionality over what was originally named Newton Intelligence. Byte Magazine gave it an award for best operating system. All the internal applications were significantly enhanced and better woven together for a more intuitive user experience. The groundwork was laid for new OS enhancements such as a TCP/IP stack for Internet communications. It looked as though Newton would finally make good on its promise as a communications device. Again, Apple offered MP120 owners to upgrade their units to Newton OS 2.0 functionality, and droves of users took them up on the offer.

Following the release of 2.0, Apple gave us the MessagePad 130, which featured a very bright backlit display and another half meg of system memory for faster, more reliable performance. The backlight alone was worth the price.

### **The brilliant MessagePad 2000**

While many users thought the MessagePad 130 was the ultimate Newton device, they were soon to be blown away by something so amazing that they would eat their words. Released in early 1997, the MessagePad 2000 was built around the fire-breathing new StrongARM processor from Digital Equipment and ARM. Running at 162MHz, the StrongARM made the Newton OS positively fly. Combined with a generous 320x240 pixel backlit grayscale display, an additional PC Card slot, an optional external keyboard, and digital voice recording, the MP2000 was considered by many to be the most impressive handheld computer ever made--albeit with an impressively high price of US\$1100 to match.

Holding all this new technology together was the new 2.1 rev of the OS. It came with several new applications. An integrated application suite called NewtWorks contained a powerful internally-developed word processor and an Excel-compatible spreadsheet called QuickFigure Pro developed by PelicanWare. We also received an e-mail client called EnRoute i-net, developed by NetStrategy, and the NetHopper web browser developed by AllPen.

How did it all work? To quote from my own review in the December 1996 issue of Pen Computing, "Everything you ever liked about any Newton device is here, and much more. I can honestly say this is the first Newton device that could replace my notebook computer as a traveling companion." And it did.

### **Meet the eMate**

As paradigm-shatteringly cool as the MessagePad 2000 was, Apple simultaneously introduced a product that raised our eyebrows even higher. Billed as the education computer of the future, the eMate 300 was unlike anything anyone had ever seen. With the processing power of the MP130, the display and ROM of the MP2000, and a translucent green clamshell-style case that looked like something from the Bat Cave, this was a completely new class of computing device. Liked by virtually everyone from kids to golden agers, the eMate had an appeal that transcended traditional boundaries. Easy and fun to use, eMates were reasonably priced at under US\$800--low enough so that almost every student in the US could have their very own computer. Schools could buy them at enticing quantity discounts, and soon they appeared in classrooms across the country. Educational software developers shipped dozens of titles for the machine.

But the eMate wasn't just for kids. Journalists began snapping up eMates as the perfect portable writing tool. Even Steve Jobs liked the eMate. Apple reportedly began developing a "bMate" version for business people, featuring a better screen and a StrongARM processor. Anticipation was high for these new keyboard-equipped Newtons.

### **MessagePad 2100: The last Newton**

Late in 1997, Apple shipped an incrementally improved version of the MP2000. The MessagePad 2100 had four times the system memory of the MP2000, a new 2.0 version of the Newton Internet Enabler, faster infrared, and support for Ethernet LAN connections. MP2000 users could upgrade for US\$99, a real bargain. The added memory made Internet communications rock-solid and gave all your applications an overall speed boost. Though it never shipped, Dragon Systems showed us a working demo of a speech recognition engine developed in cooperation with Apple specifically for the MP2100. Though Apple never said as much, many Newton insiders believe the MP2100 was created specifically to be a platform for speech recognition.

So far, this brief history has ignored the business goings-on at Apple. However, there is one event that literally changed the face of the MessagePad 2100, and that is the aborted spin-off of the Newton Systems Group into Newton Inc, a wholly owned subsidiary of Apple Computer, in late 1997. During the time the MP2100 was being readied for market, the Apple logo-shaped molding on the face of the 2000 was changed to a circular indentation that was intended to hold the Newton Inc logo. By the time the units arrived from Sharp (the Japanese manufacturer of the original MessagePads and the MP2000/2100), Steve Jobs had reabsorbed Newton back into Apple proper. The final MP2100 cases have an Apple logo painted in the slightly wrong-looking round spot, while the Newton logo and the words "Newton Technology" are silk-screened in the upper left face of the unit. This obvious patch job is a constant reminder of what Newton might have been.

## **Why kill Newton?**

Theories about why Steve Jobs killed Newton run from the banal to the bizarre. I believe that the truth, as usual, lies somewhere in between the extremes.

### ***"It never made any money"***

The simplest and perhaps the most plausible explanation for Newton's untimely death is that it was simply unprofitable for Apple to continue supporting three operating systems: the Mac OS, Rhapsody, and the Newton OS. Some sources say that Apple sunk a billion dollars into Newton and recouped only about one-fourth of that amount in sales. That's bad business any way you slice it. Inventing the future is an extremely expensive proposition, and Apple Computer is in no position to continue to invest in a money pit like Newton while it fights to protect the Macintosh from Windows-based computers.

"I prefer to think it was a cold business decision," said Clinton Logan. "The Newton was at a crossroads. A palm-size device was desperately needed to stay in the PalmPilot/Palm PC product space, a color 'bMate' was needed to combat the upcoming larger flavors of Windows CE. Newton's desktop connectivity needed to be fixed, public awareness and opinion raised, etc. Apple is a struggling company and it simply didn't have the resources to make all that happen and still remain focused on its core business: the Mac OS."

Gaston Bastiens agrees: "The only reason I can see why Steve would kill Newton is to cut costs enough to make the company profitable. He also must have seen that with Microsoft's release of Windows CE that Apple had no fighting chance to revive the Newton. They missed their opportunity, big time. We were first to market, had our infrastructure and technologies in place, and there was enough support from my players in Japan to support it."

It is clear that Newton was a losing financial proposition for most of its five-year history. It is also clear that Apple management did not understand how far ahead of the game they were, and that they gave up too soon to reap the rewards a healthy Newton platform could have provided.

### ***"Steve Jobs hates John Sculley"***

This one is easy to understand if you know anything about human nature. Sculley saw Newton as his personal contribution to the world, just as Jobs sees the Mac as his. Sculley ousted Jobs in a nasty boardroom coup, then got himself booted out for poor stock performance. Apple languished under the leadership of a pair of ho-hum corporate suits, then Jobs rode back in to save the day as interim CEO. And what's the first thing that happens when there is a new boss? He fires all his former rivals' executive flunkies, then snuffs out the pretenders' pet projects. Jobs must read Machiavelli; he clearly believes that it is better to be feared than to be loved.

***"Apple makes computers, and computers have keyboards"***

This supposedly is a quote from Steve Jobs during a Newton Inc re-absorption meeting attended by an acquaintance. According to this theory, Jobs has no use for handheld, keyboard-less devices like the MessagePad--just as he once had no use for hard drives on the Macintosh. He just doesn't seem to understand the fact that millions of people don't work sitting at a desk in an office building. They walk around, and have no laps on which to put laptops. "Jobs doesn't believe in handwriting recognition," observed Steve Capps, Newton's principal designer.

The only thing wrong with this theory is that the keyboard-equipped eMate 300 was selling in respectable numbers to schools when the axe fell. So why kill a hot product unless you have an even hotter replacement for it, and in the process enrage and alienate the entire educational market? Education is one of Apple's few remaining strongholds.

***"Intel wouldn't commit to the StrongARM"***

There were reports that Apple was unable to get a satisfactory commitment from Intel to justify another production run of MessagePad 2100s. There was also good reason to believe that Jobs didn't want to owe anything to Intel because of his commitment to the PowerPC architecture, which I believe to be true. His new "consumer mobile" devices will contain PowerPC chips.

The StrongARM processor is a combination of the low power RISC chip architecture from British ARM and Digital Equipment Corporation's workstation-class Alpha RISC processor technology. When Intel bought out DEC's chip fabs, the StrongARM suddenly became an Intel product. Initially, some analysts suspected that Intel would keep StrongARM production low or kill it off altogether so handheld computer makers would be forced to consider Intel's own mobile processor designs. Some analysts say Intel is committed to the StrongARM architecture and that production yields will remain high, while others say Intel can't decide what to do with the chip. According to a recent editorial by Jim Turley in Microprocessor Report, Intel needs the StrongARM to be a player in the handheld space but can't come to terms with selling a product they didn't invent. There are production issues as well.

"To build StrongARM today," wrote Turley, "Intel has to maintain the Hudson fab just as Digital left it. Revising the design for Intel's fabs would take months and could do violence to some of StrongARM's most charming characteristics." Later in the article Turley says "Nobody wants to invest in a microprocessor without a future, and StrongARM's future is looking iffy."

Michelle Abraham of market research firm In-Stat offers a more optimistic view. "As far as StrongARM is concerned, I believe Intel will continue to market the processor and move ahead with plans for the next generation StrongARM processors since they have signed an agreement with ARM."

***"Newton would compete with Mac NCs"***

This one holds up under close examination. Apple has been planning to ship low-cost network computers--the fabled Mac NC--which are essentially stripped down Macs with no local storage media that rely on a Rhapsody server computer instead for everything except local processing power. Code-named Columbus, this is Jobs' "next big thing," and will probably ship in two versions. The Fast Ethernet-equipped education and business model will boot from a server, while a model aimed at the home market will have a hard drive, an optional DVD drive, and a built-in 56K modem. I believe that what we will see is an eMate shell with a PowerPC processor and a nine-inch color LCD display. If I'm right, then it is understandable why they nuked the Newton OS-based eMate: people would get confused between such similar looking products. As NewtNews editor Steve Holden said, "It would look stupid for Apple to have two thin clients. One of them had to go."

***"Bill Gates bought the education market from Jobs for \$500 million"***

Bear with me here; this one reads like an X-Files episode. Back when Newton OS 2.0 was released, Apple threw a party during Comdex Las Vegas. We all had a great time, then Bill Gates showed up to cheer us on. That night, I'm told, Gates saw the MessagePad 2000 prototype and flipped out over it. It is conjectured that this was when he saw the true possibilities of what was to become Windows CE. In the following year Gates saw the eMate prototype and immediately appreciated its potential to revolutionize education. Gates' wife Melinda then had a baby girl, and Gates decided he wanted eMate-like devices running Windows CE in the hands of every student in America, if not the world.

Soon, Apple Computer is on the rocks. Jobs and Gates--who have been portrayed in the media as bitter rivals but are actually good friends--conceived a scheme to save Apple. Microsoft poured a huge pile of cash into Apple, built a killer new Macintosh version of Microsoft Office 98 along with other hot new products for the Mac, and agreed to combine several key technologies between the two companies rather than compete technologically.

In exchange for their very survival, Jobs agreed to (a) sell \$150 million in non-voting Apple stock to Microsoft; (b) settle out of court all pending Apple litigation against Microsoft for an undisclosed sum; (c) make Microsoft Internet Explorer the default web browser on all new Macs; and (d) give Gates complete access to key Apple technologies.

That's the public part that everybody knows. I have spoken to former Newton developers who claim this scheme goes much farther. The undisclosed amount paid by Microsoft, they say, combined with the \$150 million, actually came to half a billion dollars. Among the stipulations to which Jobs allegedly agreed was that he would prematurely snuff Newton, thereby deliberately angering the education market so they would adopt Windows CE-based eMate-like devices.

And what was Gates' motivation? He was supposedly ticked off at Compaq for making a soon to be announced eMate clone that runs Windows 95 instead of Windows CE. This unnamed device is reportedly targeted directly at schools. Compaq is one of the few companies big enough to do whatever it bloody well wants and say "to hell with Microsoft." It is widely believed that Gates wants the world to run on Windows NT and Windows CE, while the bloated and increasingly unsustainable Windows 95 fades away. To ensure that events in the education market happen on his terms instead of Compaq's, Gates supposedly bought the market for handheld school computers from Apple.

I don't believe this is the way it went down, but it is interesting to speculate about what Steve Jobs did agree to in these meetings.

## Why not sell it, license it, or spin it off?

Over the last year, several companies have approached Apple about buying Newton technology outright. Apple maintained that Newton was not for sale, but privately the company was entertaining offers. Since they didn't seem to respond to any of them, this was probably just a delaying tactic.

"While heading up the Newton Developer Association initiative to gather enough vertical market companies to pressure Apple into selling the Newton technology, I came across information about other companies making bids for Newton before it was killed," said former Newton developer E. Karsten Smelser of Borealis Communications. "All of the bids were in the eight-figure range. Apparently, Steve turned them all down flat. It was Steve's unwillingness to negotiate that became my biggest problem in gathering support amongst these companies. I was told by many that they had already tried and were not going to waste anymore time on it."

There was also some talk of Apple licensing Newton technology to Planet Computing, one of the companies that recently offered to buy Newton. Smelser continues, "I spoke with the other current licensees of Newton technology (the ones that aren't bankrupt) and they told me that they would never consider making anything based on that license since Steve/Apple can cancel it at any time, e.g. Mac clones."

Why not let Newton Inc spin off? Jobs' predecessor at Apple, Gil Amelio, instigated the spin-off plan. But when Jobs came back he decided to put a stop to it just as the Newton people were getting their new office furnished and their phones installed.

"Apple legal would not allow the division to be sold/merged because of possible stockholder suits that would follow if in fact the technology did take off and become successful," says Jon Covington of PDA Inc/World Market Strategies. "There would be no suits if they killed it."

It has been widely reported that when Jobs took the helm he wanted to raid the Newton division for the two or three Newton eMate designers as part of his NC plan. As I said, Jobs liked the eMate and wanted it, or something like it, for Apple. But that doesn't mean

that an independent Newton Inc shouldn't have a go at lucrative vertical markets with the MessagePad 2100. The market was there, waiting to be exploited.

"Apple had nothing really to lose," Steve Holden recently told me. "I find it very strange that Newton Inc was a complete and separate company with \$20 million in the bank and a year to live before it would go under if things failed, yet Steve Jobs brought Newton back, said it was strategic, and then killed it. Even General Magic is going after verticals with Magic Cap 3.0. Apple could have gone after vertical markets even if they abandoned the consumer market."

### **Developers take the brunt**

Though Newton owners certainly have good cause to be angry with Apple, developers have been hit the hardest by the untimely death of the Newton platform. Many hard-working companies lost their reason for existing overnight, and have suffered substantial financial losses as a result. Though less visible than commercial software companies, we know of quite a few Newton-specific development efforts involving years of work on vertical market solutions that will never ship due to a lack of hardware.

"Hundreds of businesses have been hurt by Apple's decision to kill the Newton," says Newton consultant Josh Weisbuch. "Companies such as Transport Data were well into the development of a ruggedized handheld for the emergency medical and law enforcement industries. Renaissance Digital was working with Children's Hospital here in Boston to create a completely Newton-based otolaryngology department."

Many developers rode the "Newton is dead" rumor roller coaster throughout 1997 and 1998, and ended up losing tons of money spent on damage control when their big customers got spooked. Many Newton evangelists reluctantly recommended that Apple remove its logo from Newton devices to make them more palatable to corporations. "Apple never understood the critical importance of vertical markets in creating new markets and still can't justify investing in creating them," says John Covington. "It's one of the reasons I left Apple."

### **Salvaging the best of Newton**

I think it is most likely that Jobs didn't want any competitors for his new mobile devices. Rather than risk cannibalizing Apple sales with a not-invented-by-Jobs Newton product from a subsidiary, he decided to raid Newton for any salvageable technologies that could be ported to his new machines. Newton's peerless handwriting recognition, the data soup architecture, and the Intelligent Assistant are all excellent candidates for the new machines.

"Even though the platform is gone, I think it is safe to say that Mac users will benefit from lessons Apple learned during the Newton experience," developer Cliff Joyce told me. "Most notably, the constraints imposed by a pen-based machine with very limited screen real estate resulted in some refreshing, interesting, powerful, and smart interface ideas."

## **Opportunity squandered**

The general feeling among those who worked at Apple or who watched closely is that Newton represents "a textbook case of mismanagement and opportunity squandered," as Jim Floyd of Microsoft so aptly put it.

"Steve Jobs set back the state of handwriting recognition two years by killing Newton," said Conrad Blickenstorfer. "He shelved the best HWR technology on the planet, and canned the most compelling device ever made to deliver it. It is a giant leap backwards."

"The Newton could have been a multi-billion dollar success had Sculley and I stayed," Gaston Bastiens told me. "After Sculley left, Spindler had no commitment to Newton at all and he basically killed it. People blame Jobs for this, but it was really Spindler. Apple had a unique opportunity because we had everything in place to make the Newton a worldwide standard for a wireless intelligent communications device that could do everything."

Gil Amelio's recent book seems to support this assessment. Spindler was the first to suggest that the Newton group should be sold off or axed. Amelio wanted to keep Newton alive because he thought it would eventually be profitable, but Jobs eventually overruled him.

## **A matter of trust**

Jobs wants to make a huge, 1984-magnitude splash with his new mobile machines, so you can't blame him for limiting the number of similar products if he can. Like it or not, he's the boss, so the fate of any product which bears an Apple logo is in his hands. We will just have to trust him to do the right thing.

Those of us who invested in the Newton dream have had a rude awakening. We can take solace in the awareness that we paved the way for a new class of smarter, faster, smaller, and less expensive devices that will be enjoyed by many more people than Newton ever was. In the course of researching and writing this article, I made my peace with this. It's time to move on.

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